And, just as several studies have found that the strength of the relation between maternal status superiority and achievement orientation varies inversely with SES, so have several studies found that the strength of the relationship between family size and achievement orientation varies inversely with SES.

Recently published articles by Elder and Bowerman (1963) and by Rosen (1961) provide a framework within which the relationship between family size and achievement orientation may be understood. From the works of these authors the following three conclusions can be drawn concerning the relation between family size and achievement.

(1) With the possible exception of the lower working class, which is matri-dominant, parental domination generally, and autocratic domination specifically, increase with family size. Also, as family size increases so does the tendency for the father to include child rearing as part of his responsibility, to act as chief disciplinarian, and to make decisions on child rearing matters. The implication of these conclusions lies in the fact that many studies report parental dominance, in and of itself, to be negatively related to achievement orientation. (Bowerman and Elder, 1964; Elder, 1965; McClelland, 1961; Psathas, 1957) More specifically, on the basis of a number of empirical studies, some of them

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cross-cultural,(Bowerman and Elder, 1964; Elder, 1965; Rosen, 1961; Rosen and D'Andrade, 1959; Strodbeck, 1958) it has been concluded that a home environment in which the parental and the conjugal relationships are non-authoritarian and democratic is more conducive to high achievement orientation. Thus, on the basis of an analysis of responses from some 10,000 youth, Bowerman and Elder (1964) state that "academic motivation appeared to be strongest among boys who saw their fathers both as head of the family and as democratic in relation with the boys."

Interestingly, a number of studies indicate that the adverse consequences of an authoritarian relationship will be significantly less in homes where it is the mother and not the father who displays this form of behavior. (Bowerman and Elder, 1964; McClelland, 1961, Rosen, 1961 and 1962)

(2) As family size increases, the tendency of parents to provide an explanation of conduct rules to their children decreases. Also, with an increase in family size, there is an increase in the tendency of parents to use physical as opposed to verbal forms of discipline and to reduce their use of verbal rewards and verbal praise. The implication of these findings is to be found in the fact that empirical studies have established each of these practices to be detrimental to

achievement orientation. (Elder, 1965; Elder and Bowerman, 1963; Rosen, 1961; Rosen and D'Andrade, 1959)

(3): As family size increases, parental achievement training (the setting of high goals, standards of excellence, etc.) and parental independence training (expectations for self reliance) diminish. (Elder and Bowerman, 1963; Rosen, 1961 and 1962; Winterbottom, 1958) The implication of the third set of conclusions for achievement orientation should be self-evident.

Ordinal Position

Studies, beginning with those of Galton (1874), Yoder (1894), Ellis (1904) and others too numerous to mention, have reported a strong association between birth order (1st and 2nd born) and eminence. In a careful review of these studies, Schachter (1963) notes that this relationship is essentially a reflection of the fact that scholars, eminent or not, derive from a college population in which first and second borns are in marked surplus. Findings such as this have led to the investigation of the relationship between birth order and achievement orientation. Several such investigations have concluded that, for any given family size, first borns have higher achievement motivation than do succeeding borns. (Himmelweit, Halsey, and Oppenheim, 1952; Rosen, 1961) Rosen provides a plausible explanation for this relationship when he observes that the first born child is:

(1) the sole object of parental attention until the advent of sibs; (2) likely to experience an overestimation of his abilities because the parents lack a comparison standard; (3) likely to be more intensely socialized with adults and thus be more "adult oriented" than are succeeding borns who are more likely to be "peer oriented"; and, (4) typically the object of more achievement training than are succeeding borns.

In summary, then, the numerical size of a family and the ordinal position of offspring have been found to be associated with specific parental attitudes and behaviors. Certain of these attitudes and behaviors, in turn, have been found to be associated with the achievement orientation of offspring. Those parental attitudes and behaviors conducive to high achievement orientation have been found most frequently in families of small size, and, in families of any size, directed most frequently to the early born.

Significant Others as a Source of Variation

Two important determinants of one's self conception and role behavior are significant others, i.e., those to whom the person pays attention and whose appraisals are reflected in his own self appraisals, and authoritative others, i.e., those from whom the person receives appraisal to sanction actions and desires. (Gerth and Mills, 1964)

Cast in the role of significant and/or authoritative others and thus as determinants of adolescent career orientations are the parents, peers, and teachers.

Perhaps the two most important significant and/or authoritative others, from the perspective of the adolescent, are his parents. As part of the attitudinal and behavioral syndrome of independence and achievement training, parents have been found to be quite instrumental in establishing career goals for offspring (which then constitute expected role behavior on the part of the child) and in providing the supporting attitudes and behaviors necessary for the implementation of these role expectations. Thus it is that virtually all of the studies which have investigated the relation between the career orientations set by parents for their children and the career orientations stated by the children themselves find a strong positive relation between the two. (Bell, 1963; Herriott, 1963; Simpson, 1962; Toby, 1957) Furthermore, several studies have shown a strong positive relationship between the career orientation level of a subject and the extent to which his parents urge or pressure him to be upwardly mobile. (Bordua, 1960; Simpson, 1962)

Of importance concerning these above findings is that the roles of the mother and of the father in setting and supporting the career role expectations of the offspring vary according to the SES of the family. Thus, Bennett and Gist (1964), Ellis and Lane (1963), Krauss (1964) and Lipset (1960), among others, report that the lower the SES category, the greater is the role and contribution of the mother, the less is that of the father, in setting and supporting upward mobility goals in the offspring.

The function of the peer group as a determinant of adolescent career orientations has been carefully investigated by a number of researchers. With one possible exception (Haller and Buttersworth, 1960) all of these studies have concluded that the peer group may serve either a facilitating or an inhibiting function with respect to the career orientations of the subject.

Peer groups which serve the facilitative function are those composed primarily of middle to upper SES members and/or those in which a majority of the members express career orientations toward high status positions. (Alexander and Campbell, 1964; Bell, 1963; Ellis and Lane, 1963; Krauss, 1964; Simpson, 1962; Simpson and Simpson, 1960)

Further specification of the influence of the peer group is possible from the work of Bowerman and Kinch (1959) and Alexander and Campbell (1964). The research of the first two authors, done on 686 fourth to tenth grade Ss shows that: (1) relative to family influence, peer influence increases monotonically and peaks during the sophomore to junior year of high school; and, (2) peer influence is greater for Ss with poor home adjustments than for Ss with adequate home adjustments. The research of the latter two authors, done on 1,401 male seniors in 30 high schools, demonstrates that the more "balanced" (in the Heiderian definition of the term) the peer group, i.e., the greater the ratio of reciprocal choices among its members, the greater the influence of the group on the career orientation of the S.

Teachers and guidance counselors, as might be expected, have been found to act as determinants of adolescent career orientations. Ellis and Lane (1963) in their study of 194 freshmen at Stanford University report that of all non-familial career influences, the high school teacher is the most significant. They note that more than four fifths of the lower class Ss mentioned a high school teacher as having played an important part in helping them decide upon college.

The finding of Ellis and Lane that more than four fifths of the lower class students (as opposed to a much smaller proportion for middle and upper class students) mentioned the teacher as being an important influence in career decisions, should not be overlooked. For, when considered along with the findings of Lipset, Bendix, and Mahn (1955), Toby (1957), and others that the lower the socioeconomic status of the family the greater the inability of parents and friends to give adequate career advice, this finding indicates that for lower SES students, the teacher serves as somewhat of a parental surrogate, at least in regard to advice and guidance on educational and occupational choices.

Religion, Ethnicity, and Race

Historically, and particularly since the publication of Weber's thesis of the Protestant Ethnic, the assumption has been made that the culture of Protestants and Jews and of Northern Europeans is more conducive to high achievement orientation than is the culture of Catholics and Southern Europeans.

Although there is some degree of consensus that such relationships did exist during the era of the Industrial Revolution, the existence, direction, degree, and nature of the relationships of religion and ethnicity to intended or actual achievement are questions which, even after a number of empirical studies, remain unsettled, somewhat inconclusive, and subject to continuing controversy.

Most studies on this question can be divided, on the basis of their methodology and conclusions into four categories: (1) those which, without control variables, i.e., generation of immigration, socioeconomic status, have found no relationships; (2) those which, without control variables, have found relationships; (3) those which, with controls, have found no relationships, and (4) those which, with controls, have found relationships.

Controls No; Relationships No

Mack, Murphy, and Yellin (1956) used a sample of 2,205 white males in three occupational statuses (salesmen, engineers, and bank clerks) to test the null hypothesis that no significant differences are to be found either in actual social mobility patterns or in aspiration levels between samples of Protestant and Catholic Americans. Although they did not control for generation of immigration, chi square tests of their data did not permit them to reject the null hypothesis, thus leading to the tentative conclusion that actual mobility and aspiration level is independent of religion.

Controls No; Relationships Yes

This is the category of studies most severely criticized by Lipset and Bendix (1960). For, according to Lipset, when a control for generation of immigration is invoked, the relationships between religion, ethnicity, and actual achievement tend to disappear. To support his position, Lipset cites data collected by Stouffer in his study of civil liberties, and data collected by the Michigan Survey Research Center. These data, although initially revealing actual occupational achievement to be higher among Protestants than among Catholics, fail to do so, according to Lipset, when generation of immigration is controlled, that is, when third generation Protestants are compared with third generation Catholics, and so forth.

However, Lipset and Bendix are, in turn, criticized in their approach to the question by Lenski (1961). Lenski maintains that their analysis of the survey data is somewhat cursory, and therefore the conclusions cannot be accepted at face value. Furthermore, in addition to criticizing Lipset and Bendix, Lenski also provides a re-analysis of the Mack et al., study and suggests that, in point of fact, the Mack data do indeed indicate that Protestants are upwardly mobile more often than Catholics. (Lenski, 1961, pp. 76-77)

Controls Yes; Relationships No

The studies which fall into this category are primarily those subjected to re-analysis by Lipset and Bendix and reported above.

Controls Yes; Relationships Yes

Presumably controlling for generation of immigration, Weller (1961) analyzed the actual social mobility patterns of 1100 white male Catholics and Protestants raised in communities of 25,000 or more in states north of the Mason Dixon line and living in the Detroit area. With both socioeconomic status and ethnicity held constant, Weller demonstrated that white Protestants advanced further on the average in the occupational world than did Catholics. Furthermore, his analysis suggested that Protestant--Catholic differences were not declining, and, if anything, were slightly larger among younger than among older men.

Also presumably controlling for generation of immigration, Lenski (1961) studied some 200 Protestant, Catholic, Jewish, and Negro males, living in the region encompassed by the Detroit Area Study (henceforth referred to as DAS). In summarizing his findings on the relationship of religion and race to such variables as actual social mobility, aspirations and ambitions, attitudes toward work, belief in the possibility of success, and spending and saving, Lenski concluded that:

> On the great majority of variables either the Jews or the white Protestants have ranked first with the other ranking second, the Catholics have usually ranked third, and the Negro Protestants fourth. With considerable regularity, the Jews and Protestants have identified themselves with the individualistic, competitive patterns of thought and action linked with the middle class, and historically associated with the Protestant Ethic or its secular component, the spirit of capitalism. By contrast, Catholics and Negro Protestants have more often been associated with the collectivistic, security oriented, working class patterns of thought and action historically opposed to the Protestant Ethic and the spirit of capitalism. (pp. 100-101)

Mayer and Sharp (1962) also drew on the yearly probability samples of the DAS to investigate the relationship between religious preference and such actual "worldly success" qualities as income, education, occupational status, etc. Controlling for generation of immigration, rural--urban background, size of community of origin, and race, these two authors summarized their findings as indicating that:

> (1) Jews, followed closely by Episcopalians and Calvinists, have achieved the greatest worldly success. In the middle range are the remaining Protestant groups, with Baptists falling toward the lower end of the economic scale. Catholics have achieved the least.
>
> (2) If an ascription handicap is considered, the Eastern Orthodox group, closely followed by adherents of the Semi-Christian faiths, join the Jewish group at the top of the scale.
>
> (3) Catholicism is related to economic achievement among Negroes much as it is among whites.

Rosen (1959) studied the relationship of race and ethnicity to achievement motivation, independence and achievement training, achievement values, and parental educational and occupational aspirations for their sons. His purposive sample consisted of 427 pairs of mothers and their sons (mean age 11 years) living in the Northeastern United States. Most of the mothers and all of the sons were native born and were of French-Canadian, Italian, Greek, Jewish, Negro, and white Protestant backgrounds. The following conclusions can be drawn from Rosen's study:

> (1) Protestants, Jews, and Greeks rate significantly higher than do Italians and French-Canadians on achievement and independence training, achievement values, and occupational and educational aspirations for their sons.

> (2) Negroes train their children relatively early in self-reliance but exhibit little stress on achievement training. Surprisingly, however, the mean achievement value score was higher for Negroes than for Italians and while lower than for Protestant--Jewish--Greek score, was only significantly lower than the score for the Jews. The educational aspiration level of Negro parents for their sons, while lower than that of the Protestants, Jews, and Greeks, was higher than that for the Italians and French-Canadians. However, Negro parents ranked last in the level of their occupational aspirations for their sons.
>
> (3) Achievement motivation scores were found to be highest among Jews, Greeks, and white Protestants, lower among Italians and French-Canadians, and lowest among Negroes. However, an analysis of variance test revealed that socioeconomic status is a much more important determinant of n Achievement than is ethnicity or religion plus ethnicity.
>
> (4) Protestants, Greeks, and Jews scored higher than Italians and French-Canadians on n Achievement and achievement values.

Strodbeck (1958), in a study of 1151 New Haven third generation boys, ages 14 to 17, and their parents, drew conclusions not markedly different from those of Rosen. With specific emphasis on Jews and Italians, on the basis of V scale value scores, parental occupational and educational aspirations for sons, and measured over and under scholastic achievement, Strodbeck concluded that Jews have values more likely to promote high achievement than do Italians. However, similar to Rosen, Strodbeck reports that his n Achievement scores, while in the expected direction, were not significantly different for Jews versus Italians.

What is perhaps the best summary of the rather confusing issue of religion, ethnicity, and achievement is provided by McClelland. (McClelland, 1961, pp. 363-364) He writes:

> Predominantly traditionalistic, devout Catholic groups like the French Canadians almost certainly have a lower average n Achievement level than the general average among the white Protestant population. Similarly, upwardly mobile, rapidly assimilating Catholics almost certainly have higher n Achievement than the general white Protestant population. But general over-all differences are very small and depend almost entirely on the exact composition of the two groups compared.

Literature Pertinent to Economic Distress

Precisely how chronic economic distress affects adolescent career orientations is a question largely unanswered, even though a few empirical studies on the problem do exist.

Research conducted during the depression era of the thirties indicates that serious economic distress had an adverse effect on college enrollment. Between 1931 and 1934 total enrollment in institutions of higher learning declined 8.5% throughout the nation. (Link, 1955, p. 362) Private institutions suffered the greatest percentage decline in enrollment (10% 1933-34 over 1931-32) and recorded the poorest gains during the period of economic recovery. Enrollments in public institutions fell off about 8%, but in 1934-35 more students were enrolled in public institutions than ever before. (A.A.U.P., 1937, pp. 236-237)

This decline in enrollments could be interpreted as indicating that serious economic distress depresses the level of educational aspiration. More likely, however, at least in the short run, economic distress, because of its adverse effect on financial facilities, probably depresses the level of educational expectations but not the level of educational aspirations. Support for this last statement comes from the fact that college enrollment increased 6.5% 1935-36 over 1934-35, indicating that during the early depression years many American youth retained a fairly high level of educational aspiration.

A second consequence which the economic distress of the thirties had upon college students was to change their source of support for an education. As a result of the adverse impact of the depression upon family income, the depression witnessed a rise in the number of students who attempted to finance their own education, either through finding employment inside and/or outside the college, or via federal aid (N.Y.A.) or by some combination thereof. (A.A.U.P., 1937, pp. 284-293) Other methods used separately or in combination by students to adjust to the family financial squeeze were shifting from a more to a less expensive institution, transferring from a private to a public institution; or moving from an institution far from home to one closer to home.

CHAPTER III

THEORETICAL FRAMEWORK

From the review of related literature presented in the preceding chapter there can be derived a series of propositions which form the basis upon which the following theoretical formulation is predicated:

These propositions are:

1. Pervasive within American society is a positive valence toward the value of achievement, this value having applicability generationally and inter-generationally and manifesting itself through the goal channels of the educational and occupational structure, achievement in the former often serving as a necessary condition for achievement in the latter.

2. The intensity of this valence varies positively with socioeconomic status.

3. The probability of actually attaining any given high achievement goal varies positively with socioeconomic status.

4. Two major determinants of socioeconomic status are the educational and occupational characteristics of the individual or family in question.

5. The probability of the internalization of the values, goals, and norms of any particular socioeconomic status category is a positive function of length of membership in that category or of degree of interaction with members of said category.

6. In American society, the socioeconomic status position of a family is determined primarily by the educational and occupational characteristics of the male head of household. Therefore:

   a. When a female of a superior status category marries a male of an inferior status category, she experiences downward social mobility; although, because of Proposition 5, such a process does not occur when a male of a superior status category marries a female of an inferior status category.

   b. When a female of a superior status category marries a male of an inferior status category, and consequently experiences downward social mobility, she nevertheless carries with her the values, goals, and norms she acquired while possessing membership or association in the superior status category.

7. The family is the primary institutional agency for the transmission, via socialization, of achievement values, the form and substance of these values being primarily a function of the locus of the family in the stratification hierarchy.

8. A number of conditions attributional of the family affect the degree to which socialization of the young into the achievement values will be successful. Among these conditions are:

   a. Family size
   b. Ordinal position
   c. Intensity of parental pressure for achievement
   d. Membership by the child or adolescent in agencies or groups with opposing values

Derivation of the Hypotheses

From the eight propositions presented above, the following hypotheses may be derived:

H_1: Parental career orientation scores vary positively with socioeconomic status.

H_2: Within each of the k (where k = any specified number) socioeconomic status categories:

   a. Parental career orientation scores for Ss vary positively with the education of the mother and father.

b. Parental career orientation scores for Ss are greater for families characterized by marked maternal educational superiority than for families characterized by parental educational equality or by marked paternal educational superiority. The intensity of this relationship is strongest in the lower and weakest in the upper SES categories.

c. Parental career orientation scores vary inversely with family size. The intensity of this relationship is strongest in the lower and weakest in the upper SES categories.

H_3: Adolescent career orientation scores vary positively with socioeconomic status.

H_4: The extent of the difference between adolescent aspiration and expectation scores varies inversely with socioeconomic status. [This difference is a measurement of the degree to which the S believes his aspiration is realistically attainable.]

H_5: Within each of the k socioeconomic status categories:

a. Adolescent career orientation scores vary positively with the education of the mother and father.

b. Adolescent career orientation scores are greater for families characterized by marked maternal educational superiority than for families characterized by parental educational equality or by marked paternal educational superiority. The intensity of this relationship is strongest in the lower and weakest in the upper SES categories.

c. Adolescent career orientation scores vary inversely with family size and ordinal position. The intensity of this relationship is strongest in the lower and weakest in the upper SES categories.

d. Adolescent career orientation scores vary positively with the intensity of parental pressure for achievement.

e. Adolescent career orientation scores vary positively with the career orientations of the peer group.

A Note Regarding Hypotheses on The Consequences of Chronic Economic Distress

As indicated in the review of the literature, there is a paucity of research on the consequences of chronic economic distress with respect to adolescent career orientations. This in itself limits efforts to derive hypotheses on the effects of economic distress on adolescent career orientations.

In addition to this paucity of research, this writer believes that the present status of the theory and research on adolescent career orientations is such that it also limits efforts to derive hypotheses on the consequences of chronic economic distress on adolescent career orientations.

Therefore, this report shall pursue what is essentially an empirical approach to the problem. The procedure to be used shall consist of controlling as many of the known determinants of career orientations as methodology and cell size will permit and then comparing like categories of respondents from the two economic areas on relevant dependent variables and ascertaining what differences, if any, exist between the career orientations of youth from distressed as opposed to prosperous areas.

The Concepts: Conceptual and Operational Definitions

The following are the conceptual and operational definitions of the variables of this research. The numbers that appear after the concept refer to the location of the relevant items in the questionnaire. (For questionnaire, see Appendix)

CAREER ASPIRATION: (p. 7, 50-57, 66-67; p. 8, 15-22; p. 9, 52-53; p. 10, 58-59). Conceptually, refers to an occupational and/or an educational goal selected without reference to the adequacy of facilities necessary to achieve the goal. Operationally, it shall be defined as the Duncan (1960) Socio Economic Index (SEI), and Hollingshead (1957) Index of Social Position (ISP), occupational, and educational category scores, assigned to the respective goals stated in the aspiration items of the questionnaire. Data have been secured for the aspirations of the respondent and for the aspirations of the parents for the respondent.

CAREER ORIENTATION: This is a generic term which refers to both expectations and aspirations. When employed in an hypothesis it indicates that the hypothesis concerns both the expectations and aspirations of the category of individuals stated in the hypothesis, unless otherwise noted. Career orientations have been secured for the respondent, his parents, and his peers.

EDUCATION: Conceptually, refers to the number of years of formal school which an individual has or intends to complete. Operationally, unless otherwise indicated, it shall be measured according to the seven category education index developed by Hollingshead (1957).

CAREER EXPECTATION: (p. 7, 58-65, 68-69; p. 9, 23-30; p. 10, 54-55, 60-61). Conceptually, refers to an occupational and/or educational goal selected with reference to the adequacy of facilities necessary to achieve that goal. Operationally, it shall be defined as the Duncan (1960) SEI and Hollingshead (1957) ISP, and occupational and educational category scores assigned to the respective goals stated in the expectation items of the questionnaire. Data have been secured for the expectations of the respondent and his parents.

FAMILY SIZE: (p. 2, 18-20). Conceptually, refers to the number of children plus one in the family of the adolescent. Operationally, unless otherwise noted, three levels shall be defined: Small--1 or 2 children; Medium--3 or 4 children; and, Large--5 or more children.

MARKED MATERNAL EDUCATIONAL SUPERIORITY: (p. 6, 36-38, 46-48). Conceptually, refers to the extent to which the education of the mother is considerably superior to that of the father. Operationally, defined as existing when the mother has had some formal education beyond high school and the father has completed eleven years or less of high school. Paternal educational superiority is, of course, the reverse of MES. Parental educational equality is defined as when the number of years of education of each parent is approximately equal to that of the other parent.

OCCUPATION: Conceptually, refers to a relatively routinized set of related activities pursued for financial remuneration. Operationally, it shall be measured according to the Hollingshead (1957) seven category occupational index.

ORDINAL POSITION: Conceptually, refers to the birth order of the respondent. Operationally, three levels shall be defined: First born; Last born; and, Intermediate.

PARENTAL PRESSURE: (p. 4, 39; p. 6, 39). Conceptually, refers to the stress placed by each parent upon the adolescent to continue his education beyond high school. Operationally, it shall be defined by the frequency with which the respondent reports each parent urges him to continue his education beyond high school. Four levels are distinguished: No--never urges; Low--sometimes urges; Moderate--often urges; High--constantly urges. For statistical purposes, it often will be necessary to collapse the first two levels and term them "Low," and the last two levels and term them "High."

PEER GROUP: (pp. 9-12, 35-20-23; 12-49). Conceptually, refers to those individuals with whom the adolescent associates and who are similar to him in age, sex, and interests. Operationally, it shall be defined as those three same-sex individuals named by the respondent as his three best friends.

SOCIOECONOMIC STATUS: (p. 5, 12-14, 17-24; p. 6, 46-48). Conceptually, refers to an individual's (or family's) location in the social stratification hierarchy, such location primarily determined by the educational and occupational characteristics of the individual or family. Operationally, it shall be defined according to the particular numerical score assigned to an individual or family on the basis of his (or its) educational and occupational characteristics. The criteria for the assignment of scores are those developed by Duncan (1960) and Hollingshead (1957).

SOCIOECONOMIC STATUS CATEGORY: Conceptually, refers to a category of individuals (or families) with a relatively high degree of homogeneity with respect to their educational and occupational characteristics. Operationally, it shall be defined by the division of the Duncan Socio Economic Index scores into three categories (Low = 01 - 29; Middle = 30 - 59; Upper = 60 - 99); or the division of the Hollingshead Index of Social Position Scores into four categories (Lower Working = 77 - 61; Upper Working = 60 - 44; Lower Middle = 43 - 28; and Upper Middle = 11 - 27). Note: The upper two Hollingshead categories, i.e., I and II, have been collapsed into the "Upper Middle" to ensure an "n" of sufficient magnitude thus increasing the degree of statistical reliability.

CHAPTER IV

PROCEDURES AND METHODS

Procedures

Selection of Population and Sample

The population for this research is the adolescent youth of six third class cities in the Commonwealth of Pennsylvania. These were the cities selected for the larger study mentioned in Chapter I. It should be noted that the population is thus predominantly urban, not suburban, in its composition.

Three of the cities have long histories of chronic economic distress. These cities are Altoona, which during the first half of the twentieth century was predominantly a railroad center; Johnstown, predominantly a steel center; and Wilkes-Barre, predominantly an anthracite coal center.

The other three cities have histories of economic prosperity. These cities are Lancaster, a center of diversified light and moderately heavy industry located in the fertile southeastern plains of the state; Harrisburg, the capital of the Commonwealth, and Bethlehem, the home office of the steel company which bears the city's name and also the site of a large company mill. Table 1 presents selected summary statistics on each of these six cities. Perhaps the statistic most illustrative of the economic differences between the two sets of cities is that of the weighted mean unemployment rate for the years 1950-60. For the prosperous cities this figure is 4.2%, for the depressed, 11.4%.

TABLE 1

SELECTED SUMMARY STATISTICS FOR THE SIX RESEARCH CITIES

City	1960 Population (000)[a]	Percent Civil Labor Force Unemployed 1962[b]	Mean Percent Labor Force Unemployed 1950-1960	Percent Occupied Housing Satisfactory 1960[a]	Percent Income Under $3000 Central City
Wilkes-Barre	64	10.5	12.0	86.5	25.0
Altoona	69	10.2	10.9	70.5	21.8
Johnstown	54	14.5	10.7	71.7	24.4
Bethlehem	75	5.6	4.9	89.8	13.4
Harrisburg	80	5.1	3.8	85.5	19.7
Lancaster	61	3.1	3.3	N.A.	15.2

[a] SOURCE: 1960 U.S. Census of Population

[b] SOURCE: Labor Market Area Statistics

N.A.: Not available

The research design does not entail a probability sample of the population. A probability sampling of the adolescent youth in these six cities would have involved commitments of personnel, time, and money which were beyond the resources of the research project. In lieu of a probability sample, the cohort of adolescents who were enrolled as sophomores during the 1962-63 school year in all of the public and parochial secondary schools in the six cities were selected as the subjects for the research. This cohort consists of some 6,000 males and females, modal age 15, relatively evenly divided by sex.

Data and Instrumentation

The data necessary to achieve the objectives of this research were secured by means of a questionnaire. In March of 1963, a preliminary 45 minute duration instrument was constructed and pre-tested on the sophomore class of a public high school in Tyrone, Pennsylvania. Analysis of the data from the male Ss (N = 121) conclusively indicated that the items contained in the questionnaire would secure the information necessary to test the stated hypotheses. On the basis of the pre-test analysis, a final 50 minute duration draft of the questionnaire was prepared and administered in April and May of 1963.

The instrument was administered to the test population by the writer and several skilled assistants. It was administered during a class period either in separate rooms or assembly halls, contingent upon the preferences and physical facilities of the cooperating schools.

Although the instrument requested the names of the respondents, adequate guarantees of anonymity were given the Ss by the writer.

Return and Acceptability Rate of the Survey Instrument

The instrument was administered to 3,047 sophomore males. This figure, with the one exception discussed below, represents all males who were present in the 16 schools on the respective days of testing. There is no evidence to indicate that those males who were not present in 15 of the 16 schools were absent for reasons other than the normal causes of daily school non-attendance. In one of the 16 schools, Liberty High School in Bethlehem, overcrowding in the school and school scheduling requirements necessitated administration to only one-half of the male sophomore population. That half consisted of those Ss present in all afternoon English classes. Since this subject was required of all sophomores (half had a morning class) there are no reasons for believing that this procedure introduced any systematic bias into the selection of Ss from this particular school.

An inspection of the completed questionnaires indicated that an average of 90 to 95% of each instrument had been filled out and had been done in a relatively careful and conscientious manner. For a questionnaire to be considered acceptable for analysis, it was necessary that the S state the occupation of his father. Such a condition was required by the fact that occupational data are necessary for computation of the S's socioeconomic status score, the independent variable of prime importance in the research.

Approximately 12% of the questionnaires initially failed to meet this requirement. The names of those Ss not stating the occupation of the father were then compiled and lists mailed to the proper schools, these schools being requested to supply from office records, where possible, the occupations of the Ss fathers. This procedure reduced the total non-acceptable rate to 6.4%. Table 2 presents the total male N, the acceptable male n, and the acceptability rate, by school, city, and type of economic area.

Validity Check on a Selected Response

As part of the Tyrone pretest, approximately 10% of the male Ss were interviewed immediately following their completion of the instrument. These interviews indicated that the students had responded favorably to the experience and gave no grounds for believing that their responses to the items were erroneous, insincere, or fraudulent.

Due to the nature of the items in the instrument, and because of the economics of the research budget, it was

TABLE 2

TOTAL MALE "N," TOTAL ACCEPTABLE "n," AND ACCEPTABILITY RATE OF QUESTIONNAIRES BY SCHOOL, CITY, AND TYPE OF ECONOMIC AREA

City	School	School			City			Type of Economic Area		
		N	n	%	N	n	%	N	n	%
Depressed										
Altoona	Altoona High	489	436	89.2						
	Bishop Guilfoyle	120	119	99.2	609	555	91.1			
Johnstown	Cochran High	143	143	100.0						
	Garfield High	147	144	97.9						
	Joseph Johns High	98	91	92.9						
	Bishop McCort	152	151	99.3	540	529	98.0			
Wilkes-Barre	Coughlin High	148	144	97.3						
	G.A.R. High	115	103	89.6						
	Myers High	144	142	98.6						
	Parochial High	110	103	93.6	517	492	95.2	1666	1576	94.6
Prosperous										
Bethlehem	Liberty High	191[a]	187	97.9	191	187	97.9			
Harrisburg	John Harris High	250	210	84.0						
	William Penn High	167	143	85.6						
	Bishop McDevitt	256	253	98.8	673	606	90.0			
Lancaster	McCaskey High	355	334	94.1						
	Catholic High	162	150	92.6	517	484	93.6	1381	1277	92.5
GRAND TOTAL								3047	2853	93.6

[a] Represents 50% of all 1963 sophomore males. See discussion on preceding two pages.

not possible to execute an independent verification procedure on a sample of the completed instruments.

However, the internal analysis of both the pretest and the actual test instruments yielded results fully in accordance with virtually all previous research on the problem conducted during previous years by the many independent investigators cited in Chapter II. Thus, there is strong evidence for believing that the responses to the instrument are, from the standpoint of internal validity, accurate and truthful.

One independent external validation of a selected response item was executed. From the state Department of Education the writer secured data filed during the fall of each year by every secondary school in the Commonwealth detailing the number of seniors, by sex, from the previous year's graduating class who, during the reporting period, are attending four year colleges or universities. These data were obtained for the classes of 1963 and 1964 and converted to per cent males currently in college. Then, for each school, the per cent of the class of 1965, who, as sophomores, stated in the survey instrument that they actually expected to attend a four year college or university was computed. Table 3 presents, by school, city, and economic area, the results of this comparison.

Comparing the 1964 behavioral data with the 1965 attitudinal data (collected in 1963) it may be assumed

TABLE 3

PERCENT MALES: ACTUALLY ENROLLED IN FOUR YEAR COLLEGES FROM CLASS OF 1964: REPORTING FOUR YEAR COLLEGE EXPECTATIONS, CLASS OF 1965. BY SCHOOL, CITY, ECONOMIC AREA

City	School	School			City			Type of Economic Area		
		64^a	65^b	$65\text{-}64^c$	64^a	65^b	$65\text{-}64^c$	64^a	65^b	$65\text{-}64^c$
Depressed										
Altoona	Altoona High	23.1	36.0	+12.9						
	Bishop Guilfoyle	28.5	48.7	+20.2	24.0	38.8	+14.8			
Johnstown	Johnstown Senior High	27.3	31.9	+ 4.6						
	Bishop McCort	35.1	44.0	+ 8.9	28.9	35.4	+ 6.5			
Wilkes-Barre	Coughlin	20.9	32.4	+11.5						
	G.A.R.	43.3	23.5	-19.8						
	Myers	47.7	45.0	- 2.7						
	Parochial	51.3	62.5	+11.2	40.6	40.5	- 0.1	30.8	38.2	+ 7.4
Prosperous										
Bethlehem	Liberty High	36.4	43.5	+ 7.1	36.4	43.5	+ 7.1			
Harrisburg	John Harris	28.0	27.7	- 0.3						
	William Penn	33.5	33.5	0.0						
	Bishop McDevitt	62.0	52.5	- 9.5	42.2	39.5	- 2.7			
Lancaster	McCaskey	39.8	37.3	- 2.5						
	Catholic High	40.0	44.0	+ 4.0	39.8	39.3	- 0.5	39.7	40.0	+ 0.3
GRAND TOTAL								35.0	39.0	+ 4.0

[a] Percent of males graduated June 1964 actually enrolled in a four year college Fall 1964

[b] Percent of 1963 sophomore males who, in the survey, reported an expectation to attend a four year college in 1965

[c] The difference between a and b

that the per cent point difference of five is of a minimal magnitude sufficient to warrant the conclusion of an appreciable degree of external validity of the instrument.

Preparation of the Data for Analysis

With but three exceptions, all items in the instrument are of the structured response, numerically pre-coded type. Consequently, relatively little human judgment was required in preparing the data for transferance to IBM punch cards.

Non-Precoded Data

The three categories of items which were not numerically pre-coded were: (1) name of respondent; (2) names of three peers; and, (3) occupational data, (a) that of the respondent's father (b) those stated by the respondent as his aspiration and expectation; (c) those stated by the respondent as his parents' aspiration and expectation for him, and (d) those stated by the respondent as the aspiration of each peer.

These data were prepared for analysis as follows:

Name Data

For each of the schools, respondents were placed in alphabetical order and a four digit identification number was assigned to each. Typed lists of these name-numbers were prepared. Those peers who also appeared in the sample were coded with their own name-number. Those

peers not in the sample were coded with a special "not-in-sample" four digit designation.

Occupational Data

The numerical coding of all occupational data proceeded as follows. Steps 2 - 6 and 8 were done by the writer.

1. **For each questionnaire, three separate 3 x 5 index cards were prepared for the occupation and the employer of the father, and the occupational aspiration, and occupational expectation, of the respondent.**
2. **These cards were then arranged in alphabetical order of occupational title and duplicates removed.**
3. **The U.S. Census Index of Occupations (1960) was used and each occupation was assigned its proper three-digit code.**
4. **On the basis of the Census index code, each occupation was then coded with its proper one digit Hollingshead (1957) occupational category score and its proper Duncan (1960) two digit Socio-Economic Index Score.**
5. **All occupations thus coded with six digits via the process described in steps 1 - 5 were then typed alphabetically in a master coding manual.**
6. **The master coding manual was used as the reference source with which all occupations in each questionnaire were numerically coded onto the questionnaire itself.**
7. **An IBM 7074 was used to compute for the family, for the respondent's aspirational and expectational level, and for the parents' aspirational and expectational level, the Hollingshead two digit Index of Social Position score.**
8. **Peer occupational data, because they were less specific than the other occupational data in the instrument, were coded only with the Hollingshead Occupational Category and Duncan SEI score.**

Transferring the Data from the Questionnaires to the IBM Cards

With the exception of the Hollingshead ISP index, which was computer punched onto the prepared IBM cards, all data were first transferred from the questionnaires to IBM coding forms. This was done by two skilled coding clerks from the Statistical Service Laboratory of the Department of Agricultural Economics and Rural Sociology of The Pennsylvania State University. Their work was independently verified by other statistical clerks from the same department.

The data from the verified coding forms were then punched onto IBM cards, four cards per respondent. This was done by a skilled keypunch operator from the Statistical Service Laboratory. All keypunching was independently verified by another skilled operator.

A five per cent sample quality control check was then executed. Two statistical clerks compared the IBM list out sheets with the original IBM coding forms. The standard of accuracy for the Statistical Service Laboratory in work of this nature is less than one tenth of one per cent error. No evidence uncovered by the two quality control clerks or by this writer would indicate an exception to this standard.

Methods of Analysis

Hypotheses One, Three, and Four

Hypotheses one, three, and four are concerned with the existence, direction, and degree of association between socioeconomic status and, respectively, parental career orientations, adolescent career orientations, and the extent of the difference between adolescent aspirations and expectations.

Two separate procedures are employed to test hypotheses one and three: (1) individual correlational analysis, and (2) category correlational analysis. One procedure, category correlational analysis, is used to test hypothesis four.

The Independent or Predictor Variable

For hypotheses one, three, and four, the predictor variable is the Duncan SEI score assigned to the father of each respondent to designate the socioeconomic status position of the family. The Duncan SEI score was selected for two reasons: (1) it has a wider score range than the Hollingshead ISP (01-99 *vs.* 11-77, respectively) and is thus better suited to correlational analysis than is the ISP; (2) the methods and components used in constructing the SEI scale would seem to provide scores which more closely approximate than does the ISP the parametric correlation assumption of a continuously distributed variable.

The Dependent or Criterion Variables

Procedure 1: Individual Correlational Analysis

Hypothesis One: The parental career orientation scores used to test this hypothesis are:

(1) Parental Socioeconomic Status Aspiration for the S, as measured by the Duncan SEI score assigned to the reported parental occupational aspiration for the S.

(2) Parental Socioeconomic Status Expectation for the S, as measured by the Duncan SEI score assigned to the reported parental occupational expectation for the S.

Hypothesis Three: The adolescent career orientation scores used to test this hypothesis are:

(1) The Socioeconomic Status Aspiration of the S, as measured by the Duncan SEI score assigned to the occupational aspiration of the S.

(2) The Socioeconomic Status Expectation of the S, as measured by the Duncan SEI score assigned to the occupational expectation of the S.

Procedure 2: Category Correlational Analysis

Hypothesis One: The parental career orientation scores, computed for each of the 18 Duncan SES categories, used to test this hypothesis are:

(1) Percent of Ss reporting a paternal educational aspiration, expectation, to four or more years of college.

(2) Percent of Ss reporting a maternal educational aspiration, expectation, to four or more years of college.

(3) Percent of Ss reporting a parental occupational aspiration, expectation, to Hollingshead occupational categories 1, 2, and 3. These categories designate minor to major professional and administrative positions and an aspiration and/or an expectation to these categories may be taken as indicative of high achievement motivation with respect to vertical social mobility.

Hypothesis Three: The adolescent career orientation scores, computed for each of the 18 Duncan SES categories, used to test this hypothesis are:

(1) Percent of Ss reporting an educational aspiration, expectation, to four or more years of college.

(2) Percent of Ss reporting an occupational aspiration, expectation, to Hollingshead occupational categories 1, 2, and 3.

Hypothesis Four: To test hypothesis four, the percent of Ss who report that they both aspire and expect to achieve four or more years of college was calculated for each of the 18 Duncan SES categories.

Statistical Test

The Pearsonian product moment correlation procedure and appropriate one-tailed tests (directional hypotheses) are used to measure the existence, direction, and degree of relationship between the variables described above.

A Note on Individual and Category Correlations

When the procedure of individual correlational analysis is employed, the statistical unit of analysis is the subject qua subject, and, for this research the number of subjects is approximately 2853. The correlation input consists of the prediction and criterion scores for each of the 2853 Ss, less those who have not responded to the items under analysis. This procedure is most useful when attempting to explain and predict the behavior of an individual or individuals rather than the behavior of a given category or categories of individuals. It is somewhat similar to the political sociologist who attempts to predict whether an individual, Mr. A., who is a Democrat, will vote for the party nominee as opposed to predicting what proportion of the category of Democrats will vote for the party nominee.

When the procedure of category correlational analysis is employed, the statistical unit of analysis is no longer the subject *qua* subject, but *k* aggregates of *S*s, each aggregate being defined as having predictor scores which fall within a given stipulated range. For hypotheses one, three, and four, *k* = 18. These 18 categories were derived as follows: (1) respondents were classified according to the Duncan SEI scores assigned to their respective families on the basis of the SEI rating of the father's occupation; (2) the SEI continuum was divided into 18 aggregates each with a score interval of five SEI units, the first interval being 00-04, the last being 85-96, the collapsing of the last and highest two being done to secure an *n* which would provide an adequate degree of statistical reliability. The predictor variable is the midpoint score of the 18 SEI statistical aggregates or categories.

With category analysis, the correlation input consists of the midpoint SEI score for each of the 18 categories (predictor variable) and, for the criterion variable, an appropriate central tendency score for each of the 18 categories, e.g., percent of S̲s reporting that they expect to attend four or more years of college.

Finally, it is of considerable importance to note that the correlation coefficient produced by an individual zero order correlation almost always will be smaller in magnitude than the coefficient produced by a category correlation of the same two variables.

The reason for this difference in magnitude stems from the nature of the correlation equation itself and from the consequences which the grouping of individuals into categories have upon certain components of that equation.

A correlation equation is essentially a ratio of variances; more precisely it is the ratio of the covariance of a bivariate distribution to the product of the standard deviations of each variable, the standard deviation of a variable being the square root of the variances of that variable.

Thus, any procedure which reduces the variance of one or of both variables will reduce the magnitude of the denominator of the correlation equation, relative to the numerator, and hence increase the magnitude of the coefficient.

The grouping of individuals into categories is one such procedure which reduces the variance of the variables in the equation. The grouping of individuals into categories has a variance reducing effect analogous to that which occurs when k samples are drawn from a universe and the standard deviation of the means of these samples is calculated. That is, the standard deviation of a universe of, say, 100 individual items is sigma. But, if from this universe of 100 individual items five samples of 20 are drawn, the standard deviation of these means is not sigma, but a much smaller statistic, sigma divided by the number of cases in the sample.

Thus, the effect which the grouping of individuals into categories and then correlating the means, $\bar{X}$, and $\bar{Y}$ for each of the categories has is to reduce the standard deviations of each of the two variables and thus to reduce the magnitude of the denominator relative to the numerator of the correlation equation and hence to increase the magnitude of the correlation coefficient.

Hypotheses Two and Five

Hypotheses two and five are concerned with the effect of specified variables on the intra-SES category variation in parental and adolescent career orientation scores.

These hypotheses are tested as follows:

Classification Variables

Respondents were classified into the four socioeconomic status categories according to the Hollingshead ISP scoring system. The break points employed are those specified in the preceding chapter under the conceptual and operational definitions of socioeconomic status category. The Hollingshead system is employed here because this system, unlike the Duncan, provides some theoretical basis for believing that those SES categories which result when the distribution is "cut" at the specified points are, in point of fact, actual social class and status groupings of people rather than mere statistical aggregates.

Within each of the four Hollingshead SES categories, respondents were then divided in accordance with the conditions specified in the sub-parts of hypotheses two and four.

Dependent Variables

The criterion or dependent variables for hypotheses two and five are:

1. H_2: The Hollingshead category scores for the educational aspiration and expectation of the father and mother for the respondent.

2. H_5:

   a. The Hollingshead category scores for the educational and occupational aspirations and expectations of the respondent for himself.

   b. The Hollingshead ISP score of the respondent for himself.

   c. The Duncan SEI score of the respondent for himself.

Statistical Procedures and Testing

For those educational and occupational aspiration and expectation variables measured with the Hollingshead seven category classification, three types of analyses are employed: (1) percentage descriptive analysis, (2) frequency distribution analysis, to permit statistical testing with Chi square, (3) analysis of cell means via analysis of variance and the appropriate F tests.

For those career orientation variables measured with the Hollingshead ISP and the Duncan SEI scores, the means of these scores per cubicle are computed. Data in this form are subjected to analysis of variance techniques.

Two Special Notes on the Testing of the Hypotheses

The Use of a Factorial Design

Hypotheses two and five are stated in a form amenable to a factorial design, that is, where every level of every classification variable appears once and only once with every level of every other classification variable. (Winer, 1962)

With survey as opposed to experimental data, the basic problem posed by the factorial design is that of the disproportional distribution of cases, such disproportionality often resulting in severe attrition of cell sample size.

However, to the extent that cell size permits, the factorial design is used in the testing of hypotheses two and five.

The Use of Parametric Statistical Techniques

This writer is aware of the all too obvious fact that the data of this research do not meet the rigid assumptions of parametric statistical procedures. (Seigel, 1956)

However, there are two reasons which, in the opinion of the writer, warrant the use of parametric as opposed to non-parametric tests, wherever such tests are appropriate.

1. Much statistical research has shown that moderate and even extreme deviations from many of these assumptions do not adversely affect the outcome of parametric tests applied where a statistical purist would only apply their non-parametric analogs. (Box, 1957, 1963; McNemar, 1962; Winer, 1962)
2. All too frequently, non-parametric tests indicate only the existence and, less frequently, the degree of association. This,

> of course, all parametric analogs will do. More importantly, however, is the fact that certain parametric techniques will do what many of their non-parametric analogs will not do--provide an estimation of the variance explained in the dependent variable by the independent variable(s) and provide an estimation of how many units of change will be brought about in the dependent variable by one unit of change in the independent variable.

Consequently, on the basis of arguments one and two, this writer has elected to employ, wherever sound reasoning permits, parametric as opposed to non-parametric techniques, cognizant, however, of the limitations imposed by the nature and form of survey data.

CHAPTER V

DATA AND ANALYSES

Data and analyses are presented in this chapter according to the order in which the hypotheses were stated in Chapter III.

Hypotheses Regarding Parental Career Orientations for Sons

H_1: Parental career orientation scores vary positively with socioeconomic status.

Individual Correlation Analysis

The independent variable for this particular analysis is the Duncan SEI score designating the status of the family and assigned on the basis of the occupation of the father.

Two dependent variables were correlated with this independent variable: the SEI scores designating the status aspiration of the parents for their sons, and the SEI scores designating the status expectation of the parents for their sons. These scores were assigned to the occupation which the respondent reported his parents aspire for him to achieve and the occupation which the respondent reported his parents expect him to achieve.

The zero order correlation coefficient between the

SEI scores designating family status and the SEI scores designating the status aspiration of the parents for their sons is 0.174, significant beyond the .001 level with 2845 df. The zero order correlation coefficient between the SEI scores designating family status and the SEI scores designating the status expectation of the parents for their sons is 0.196, significant beyond the .001 level with 2845 df.

Family size correlated -0.105 with family socioeconomic status, -0.099 with parental status aspirations, and -0.113 with parental status expectations.

Thus, the above evidence is adequate to reject the null hypothesis that parental career orientation scores vary independently of or inversely with socioeconomic status.

However, while the two correlation coefficients are in the predicted direction and statistically significant, their patently small magnitude provides little evidence to indicate that family socioeconomic status is a reliable predictor of parental status orientations for sons.

Category Correlation Analysis

As per the discussion of procedure presented in the preceding chapter, the fathers of all Ss were assigned their appropriate Duncan SEI scores and the resulting SEI continuum was then divided into 18 socioeconomic statistical categories.

For each of these categories, percents were computed for specified levels of those variables representing the educational and occupational career aspirations and expectations of parents for their sons. Table 4 presents these variables and the percent of Ss by category at the levels of the variable indicated in the column heads of the table. The degree and direction of association of these percentage measurements of each variable with the Duncan midpoint SEI scores are reported in the correlation coefficients which appear in the bottom row of the table.

Inspection of the table reveals that the percent of parents per category who have high status occupational aspirations and expectations for their sons, and/or who have college aspirations and expectations for their sons, is positively correlated with socioeconomic status.

Thus, these coefficients provide evidence adequate to reject the null hypothesis that the percent of parents with high occupational and educational career orientations for their sons varies independently of or inversely with socioeconomic status. On a category basis, the magnitude of these coefficients also indicates that the percent of parents with specified occupational and educational career orientations for their sons can be reliably predicted from the average socioeconomic status score designating the stratification category in which the families hold membership.

The pattern and significance of the relationship

TABLE 4

PERCENT OF PARENTS REPORTING SPECIFIED CAREER ORIENTATIONS FOR SONS BY DUNCAN SOCIOECONOMIC STATUS

Midpoint SEI Scores	Parental Aspirations: Educational (Four or more Years College) Paternal	Parental Aspirations: Educational (Four or more Years College) Maternal	Parental Aspirations: Occupational (Minor to Major Prof.-Adm. Position) Parental	Parental Expectations: Educational (Four or more Years College) Paternal	Parental Expectations: Educational (Four or more Years College) Maternal	Parental Expectations: Occupational (Minor to Major Prof.-Adm. Position.) Parental
2	48.3	51.7	31.0	24.1	24.1	13.8
7	40.5	44.3	41.8	17.3	19.0	21.1
12	47.9	37.5	35.4	8.3	10.4	20.8
17	42.8	44.0	42.4	16.3	19.1	25.6
22	49.3	50.7	44.7	23.7	24.2	27.4
27	44.7	43.9	44.7	17.4	19.7	34.8
32	52.2	53.9	54.3	31.5	33.6	37.9
37	68.4	72.8	59.3	37.7	40.4	37.7
42	62.6	60.4	54.4	34.6	33.6	38.4
47	58.3	54.3	52.8	37.0	37.8	37.0
52	72.3	76.2	62.4	46.9	47.9	43.6
57	75.4	76.9	61.5	55.4	46.2	52.3
62	77.1	74.3	62.9	54.3	54.3	51.4
67	79.8	79.8	64.0	62.7	62.7	50.4
72	86.4	84.1	65.9	65.9	70.5	52.3
77	88.8	88.8	74.0	76.0	76.0	64.0
82	79.1	83.6	70.1	70.1	71.6	58.2
90	88.2	88.2	80.4	64.7	68.6	60.8
Pearsonian correlation with SEI:	0.945	0.920	0.965	0.947	0.951	0.976

East coefficient significant beyond the .001 level.

TABLE 5

PERCENT OF RESPONDENTS REPORTING PATERNAL AND MATERNAL EDUCATIONAL ASPIRATIONS AND EXPECTATIONS FOR RESPONDENTS THEMSELVES, BY HOLLINGSHEAD SOCIOECONOMIC STATUS

Educational Dimension (Years)	Hollingshead Socioeconomic Status									
	Upper Middle		Lower Middle		Upper Working		Lower Working		Totals	
	Fa.	Mo.	Fa.	Mo.	Fa.	Mo.	Fa.	Mo.	Fa.	Mo.
Aspirations										
16+	84.5	85.5	74.6	73.7	57.0	57.7	40.6	43.1	58.9	59.6
14	4.5	4.5	8.2	9.6	18.0	18.3	18.3	18.9	15.0	15.6
12-10	1.4	2.7	5.7	6.3	13.8	15.6	25.1	27.2	13.9	15.5
Do Not Know	8.2	5.9	9.9	7.0	9.1	6.1	12.3	7.4	10.0	6.6
No Response	1.4	1.4	1.6	3.5	2.2	2.3	3.7	3.4	2.3	2.7
Totals	100.0	100.0	100.0	100.1	100.1	100.0	100.0	100.0	100.1	100.0
Expectations										
16+	70.0	71.4	50.8	52.7	31.7	32.4	15.7	17.0	34.7	35.8
14	6.8	6.8	12.9	12.3	15.3	17.3	14.3	16.1	13.9	15.2
12-10	8.6	8.6	18.6	19.1	38.3	38.8	52.6	52.4	35.4	35.8
Do Not Know	12.7	12.3	15.5	12.0	12.1	9.0	12.4	10.6	12.9	10.2
No Response	1.8	1.0	2.3	3.8	2.6	2.5	5.0	3.8	3.1	2.9
Totals	99.0	100.1	100.1	99.9	100.0	100.0	100.0	99.9	100.0	99.0

between parental educational orientations and socioeconomic status were also tested with the use of the more conventional division of socioeconomic status into four Hollingshead categories. Table 5 presents, in percentage form, paternal and maternal educational aspirations and expectations for the Ss by each of the four Hollingshead categories. These data, in frequency form, were subjected to Chi square tests of independence. The tests, shown in Table 6, reveal that parental educational orientations for their sons vary positively with socioeconomic status.

TABLE 6

Results of Chi Square Tests of the Relationship between Socioeconomic Status and Parental Educational Orientations for the Ss

Dependent Variable	Computed Chi Square Values	Corrected Contingency Coefficient	Probability that the Relationship is Due to Chance
Paternal			
Educ. Asps.	203.68	.281	less than .001, 6 df.[a]
Educ. Exps.	306.57	.351	less than .001, 6 df.
Maternal			
Educ. Asps.	185.01	.274	less than .001, 6 df.
Educ. Exps.	319.08	.354	less than .001, 6 df.

[a] Each table was 4 columns (four SES categories) by 3 rows (three educational levels). Thus, 6 df.

H_2: Within each of the k (k = 4) socioeconomic status categories:

a. Parental career orientation scores for Ss vary positively with the education of the mother and father.

Because of the large amount of space which a presentation of data for both educational and occupational career orientations would have required, it was decided to restrict the discussion to parental educational career orientations. There are two reasons why educational rather than occupational orientations were selected.

(1) With the exception of the relationship between parental occupational orientations and the educational attainment of the parents, most other aspects of H_2 have been tested with correlation analysis and presented in the preceding pages of this chapter.

(2) Of the two forms of career orientation, it is plausible to assume that reported parental educational orientations are more valid than are reported parental occupational orientations because: (a) for high school sophomores, education tends to be more of a present and everyday concern, (b) the range of educational alternatives is more restricted than is that for occupational alternatives and thus parental intentions are probably more specific for the former than for the latter, (c) education is increasingly becoming a necessary condition for any form of vertical social mobility in urban, industrial, bureaucratic America and thus may be considered a primary determinant of the occupational alternatives which will be open to an adolescent.

Tables 7 and 8 present, in percentage form, the reported educational aspirations and expectations of the father (Table 7) and of the mother (Table 8) for the Ss by the educational attainment of each parent for each of

TABLE 7

PERCENT OF RESPONDENTS REPORTING PATERNAL EDUCATIONAL ASPIRATIONS AND EXPECTATIONS TO FOUR OR MORE YEARS OF COLLEGE, BY HOLLINGSHEAD SOCIOECONOMIC STATUS AND EDUCATION OF EACH PARENT

Education of Father (Years)	Education of Mother (Years)	Hollingshead Socioeconomic Status									
		Upper Middle		Lower Middle		Upper Working		Lower Working		Average	
		Asp.	Exp.	Asp.	Exp.	Asp.	Exp.	Asp.	Exp.	Asp.	Exp.
13+	13+	91.4	79.0	81.1	62.3	81.2	50.0	NO CASES		86.4	70.0
	12	78.4	63.2	79.5	54.0	68.0	42.5			77.0	54.8
	11-	85.7	64.2	70.0	47.5	52.9	20.5			66.2	40.0
	Avg.	[85.8	72.1]	[78.5	55.8]	[64.9	36.0]			[78.8	58.2]
12	13+	NO CASES		80.5	75.0	74.3	50.0			76.7	59.4
	12			73.6	46.4	61.4	38.0	62.9	22.2	64.6	39.5
	11-			76.1	52.3	47.9	24.7	41.6	8.3	51.9	27.6
	Avg.			[75.3	52.7]	[58.9	35.4]	[56.3	20.0]	[62.5	38.7]
11-	13+			85.7	57.1	75.6	48.7	51.6	35.4	67.0	44.3
	12			76.6	36.6	57.2	28.8	44.6	15.3	53.9	24.3
	11-			69.5	34.7	52.1	25.9	40.0	16.7	46.4	21.4
	Avg.			[75.0	38.3]	[56.1	28.9]	[42.1	17.4]	[50.7	24.1]
Average		85.8	72.1	76.8	52.5	58.2	32.9	43.8	18.0	61.0	36.8

TABLE 8

PERCENT OF RESPONDENTS REPORTING MATERNAL EDUCATIONAL ASPIRATIONS AND EXPECTATIONS TO FOUR OR MORE YEARS OF COLLEGE, BY HOLLINGSHEAD SOCIOECONOMIC STATUS AND EDUCATION OF EACH PARENT

Education of Father (Years)	Education of Mother (Years)	Hollingshead Socioeconomic Status									
		Upper Middle		Lower Middle		Upper Working		Lower Working		Average	
		Asp.	Exp.	Asp.	Exp.	Asp.	Exp.	Asp.	Exp.	Asp.	Exp.
13+	13+	90.0	78.0	84.7	63.5	87.5	56.2	NO CASES		87.9	70.5
	12	77.2	65.8	73.7	51.6	70.2	42.5			74.1	54.4
	11-	85.7	71.4	75.0	55.0	50.0	23.5			67.4	46.0
	Avg.	[84.8	72.7]	[77.7	56.2]	[65.9	38.1]			[78.3	59.1]
12	13+	NO CASES		86.1	77.7	77.0	52.7			81.0	61.2
	12			71.2	50.4	63.1	38.5	70.3	29.6	65.5	41.1
	11-			73.8	50.0	48.4	26.2	33.3	8.3	51.1	28.4
	Avg.			[74.3	55.1]	[60.4	36.5]	[56.3	21.8]	[63.4	40.1]
11-	13+			100.0	42.8	82.9	56.0	61.2	45.1	75.9	50.6
	12			80.0	43.3	57.2	30.2	48.6	16.6	55.6	26.0
	11-			52.1	34.7	49.4	24.3	42.2	16.4	45.7	20.5
	Avg.			[71.6	40.0]	[55.3	29.3]	[45.3	18.2]	[51.6	24.8]
Average		84.8	73.1	75.6	53.9	58.8	33.8	46.7	18.9	61.6	37.7

the four socioeconomic status categories. Both tables reveal a definite tendency for the dependent variables to vary positively with the educational attainment of each parent within each SES category.

These data, in frequency form, were tested with Chi square. Table 9 presents the results of those tests. With all four SES categories collapsed, the data indicate that the educational aspirations and expectations of each parent are not independent of the parent's own educational attainment. The table also indicates that the control for socioeconomic status does not "wash out" or remove the lack of independence between parental educational attainment and parental educational expectations for the Ss.

Thus, the Chi square values permit the rejection of the null hypothesis that parental educational orientations for their sons are independent of or vary inversely with parental educational attainment. Specifically, the data permit the rejection of this null hypothesis for parental aspirations and expectations when the socioeconomic status variable is collapsed, and for parental expectations when the relationships are tested within each of the four socioeconomic status categories.

TABLE 9

RESULTS OF CHI SQUARE TESTS OF RELATIONSHIP BETWEEN EDUCATIONAL ATTAINMENT OF EACH PARENT AND PARENTAL EDUCATIONAL ORIENTATION FOR SON

Dependent Variable	Hollingshead Socioeconomic Status	Computed Chi Square Values	Corrected Contingency Coefficient	Probability that Relationship is Due to Chance
Paternal				
Educ. Asps.	All 4	157.73	.348	less than .001[b]
Educ. Exps.	All 4	241.11	.427	less than .001
Educ. Exps.[a]	Upper Middle			Five expected cell values less than 5. Could not test with Chi square.
	Lower Middle	16.45	.262	between .01 and .001
	Upper Working	10.34	.134	between .02 and .01
	Lower Working	5.51	.014	between .10 and .05[c]
Maternal				
Educ. Asps.	All 4	165.00	.346	less than .001
Educ. Exps.	All 4	215.58	.402	less than .001
Educ. Exps.[a]	Upper Middle	8.13	.280	between .10 and .05
	Lower Middle	22.89	.308	less than .001
	Upper Working	46.70	.270	less than .001
	Lower Working	21.60	.282	less than .001

[a] Within SES Category Chi square values computed only for parental educational expectations.

[b] Each table, unless otherwise noted, was 3 x 3 thus yielding 4 df.

[c] Paternal educational category of 13+ years collapsed into category of 12 years to obtain expected cell values of 5+, thus degrees of freedom = 2.

b. Parental career orientation scores for Ss are greater for families characterized by marked maternal educational superiority than for families characterized by marked paternal educational superiority or by parental educational equality. The intensity of this relationship is strongest in the lower and weakest in the upper socioeconomic status categories.

An inspection of specific cells in Tables 7 and 8 permits a fairly detailed analysis of the effect of marked maternal and paternal educational superiority and of paternal educational equality on paternal and maternal educational aspirations and expectations for the Ss.

Unfortunately, the absence of cases in these specific categories in the Lower Working and Upper Middle categories does not permit a complete measurement of the intensity of these effects in relation to socioeconomic status. However, a comparison of the data for the Upper Working and Lower Middle SES categories does provide some indication of the intensity of this effect in relation to socioeconomic status.

Table 10 presents data pertinent to parental educational discrepancies and parental educational orientations to four or more years of college for the Ss. From this table, the following conclusions may be drawn:

1. Marked maternal educational superiority (henceforth MES) operates in the direction hypothesized. This may be observed by referring to the column "Differences MES - PES." In that column the data reveal that the percent of Ss reporting a maternal and a paternal college aspiration or expectation is considerably greater where the education of the mother is superior to that of the

TABLE 10

THE EFFECTS OF PARENTAL EDUCATIONAL DISCREPANCIES ON THE EDUCATIONAL ASPIRATIONS AND EXPECTATIONS OF PARENTS FOR THEIR SONS: PERCENT OF RESPONDENTS REPORTING PATERNAL, MATERNAL ASPIRATIONS AND EXPECTATIONS FOR SONS TO FOUR OR MORE YEARS OF COLLEGE, BY HOLLINGSHEAD UPPER WORKING AND LOWER MIDDLE SOCIOECONOMIC STATUS CATEGORIES

Hollingshead Socioeconomic Status	Educational Dimension of Parent for Son	Parental Educational Discrepancy		Difference	Mean % Per SES Category	Differences	
		Mother 13+ Father 11-	Father 13+ Mother 11-	MES - PES^a		MES minus Category	PES minus Category
Upper Working	Aspirations						
	Maternal	82.9	50.0	+32.9	58.8	+24.1	- 9.8
	Paternal	75.6	52.9	+22.7	58.2	+17.4	- 5.3
Differences: Mat. - Pat.		+ 7.3	- 2.9				
	Expectations						
	Maternal	56.0	23.5	+32.5	33.8	+22.2	-10.3
	Paternal	48.7	20.5	+28.2	32.9	+15.8	-12.4
Differences: Mat. - Pat.		+ 7.3	+ 3.5				
Lower Middle	Aspirations						
	Maternal	100.0	75.0	+25.0	75.6	+24.4	- 0.6
	Paternal	85.7	70.0	+15.7	76.8	+ 8.9	- 6.8
Differences: Mat. - Pat.		+14.3	+ 5.0				
	Expectations						
	Maternal	42.8	55.0	-12.2	53.9	-11.1	+ 1.1
	Paternal	57.1	47.5	+ 9.6	52.5	+ 4.6	- 5.0
Differences: Mat. - Pat.		-14.3	+ 7.5				

[a] The percent for Maternal Educational Superiority (MES) minus the percent for Paternal Educational Superiority (PES)

father than where the education of the father is superior to that of the mother. The one exception to this appears in the Maternal Expectation cell in the Lower Middle class. This exception, however, may be a function of statistical unreliability induced by a cell denominator of seven. All other cell denominators, it may be noted, exceed 33 in magnitude.

2. As noted in conclusion 1, the data reveal that the effect of MES is not limited solely to maternal educational orientations for the son, but that MES has a decided influence on paternal educational orientations as well. This may be seen by observing in the "MES - PES" column that the percent of Ss reporting a paternal college orientation under conditions of MES is markedly greater than the percent of Ss reporting a paternal college orientation under conditions of paternal educational superiority (henceforth, PES). The one exception occurs in the cell noted in conclusion 1.
3. In conjunction with conclusion 2, however, it may be seen by referring to the row "Differences: Mat. - Pat.," with the exception of the cell noted in conclusion 1, that for families characterized by MES the percent of Ss reporting a maternal college orientation is greater than the percent reporting a paternal college orientation. Thus, although MES influences paternal as well as maternal educational orientations, it influences maternal orientations more than paternal orientations, a finding which is not at all surprising.
4. By comparing the percent of Ss reporting paternal and maternal college orientations under conditions of MES and PES with the SES category mean percent, (see column "Differences: MES minus Category) it may be seen, with the exception noted in conclusion 1, that MES raises the percent of Ss reporting parental college orientations above the SES category mean. Inspection of the column "Differences: PES minus Category" shows that this effect does not hold for PES since, in all but the above-noted exception, the PES percentages are below the SES category means.

5. Inspection of the PES column reveals that with one exception, (Upper Working, Aspirations, Differences: Mat. - Pat.), even in families where the education of the father is superior to that of the mother, a greater percent of Ss report a maternal college orientation than report a paternal college orientation.

6. Inspection of the MES - PES column indicates that although the effect of MES is present in the Lower Middle category, that effect, as hypothesized, is of a smaller magnitude in the Lower Middle than in the Upper Working category.

On the basis of the data presented above, the evidence is adequate to reject the null hypothesis that within the Upper Working class category parental career orientations for Ss under conditions of marked maternal educational superiority are equal to or less than parental career orientations for Ss under conditions of marked paternal educational superiority.

With respect to socioeconomic status and the intensity of the effect of marked maternal educational superiority on parental career orientations for Ss, evidence from only two SES categories cannot be considered adequate to test the null hypothesis. It should be noted, however, that those data which are available do lend support to a rejection of the null hypothesis that the intensity of the effect of marked MES is independent of or stronger in the upper and weaker in the lower socioeconomic status categories.

Concerning the comparison of the effect of marked MES with parental educational equality, Table 11 reveals

TABLE 11

COMPARISON OF THE EFFECTS OF MARKED MATERNAL EDUCATIONAL SUPERIORITY WITH PARENTAL EDUCATIONAL EQUALITY: PERCENT OF RESPONDENTS REPORTING PATERNAL AND MATERNAL EDUCATIONAL ASPIRATIONS AND EXPECTATIONS TO FOUR OR MORE YEARS OF COLLEGE BY HOLLINGSHEAD UPPER WORKING AND LOWER MIDDLE CATEGORIES

Socio-economic Status	Educational Dimension of Parent for Son	Col. 1 Maternal Educational Superiority	Col. 2	Col. 3	Col. 4	Differences		
			Parental Educational Equality			Col. 1 minus Col. 2	Col. 1 minus Col. 3	Col. 1 minus Col. 4
		M = 13+ Yrs. F = 11- Yrs.	M = 11- F = 11-	M = 12 F = 12	M = 13+ F = 13+			
Upper Working	Aspirations							
	Maternal	82.9	49.4	63.1	87.5	+33.5	+19.8	- 4.6
	Paternal	75.6	52.1	61.4	81.2	+23.1	+14.2	- 5.6
	Expectations							
	Maternal	56.0	24.3	38.5	56.2	+31.7	+17.5	- 0.2
	Paternal	48.7	25.9	38.0	50.0	+22.8	+10.7	- 1.3
Lower Middle	Aspirations							
	Maternal	100.0	52.1	71.2	84.7	+47.9	+28.8	+15.3
	Paternal	85.7	69.5	73.6	81.1	+16.2	+12.1	+ 4.6
	Expectations							
	Maternal	42.8	34.7	50.4	63.5	+ 8.1	- 7.6	-20.7
	Paternal	57.1	34.7	46.4	62.3	+22.4	+10.7	- 5.2

that for the Upper Working category the percent of Ss reporting paternal and maternal college orientations in the marked MES condition exceeds the percents for two of the three parental equality conditions, i.e., M = F = 11-, and M = F = 12, and approaches closely the percents in the third equality condition, M = F = 13+.

For the Lower Middle category, the percent of Ss reporting maternal and paternal college aspirations in the marked MES condition exceeds those in all three equality conditions. The pattern for paternal college expectations reveals that the percent in the marked MES condition exceeds those in the equality conditions of M = F = 11- and M = F = 12, but is 5.2 points less than that in the condition M = F = 13+.

The pattern for maternal educational expectations, however, reveals that the marked MES percent exceeds only that in the M = F = 11- condition. It should be remembered, of course, that this is the cell with a denominator of seven, and is consequently subject to statistical unreliability.

Thus, the data do not provide general unequivocal support for the rejection of the stated null hypothesis that under conditions of marked MES parental career orientation scores are equal to or less than those under conditions of parental educational equality. The data do provide evidence, with the one exception noted immediately above, for the rejection of a more specific revised null hypothesis; namely, that under conditions of marked MES, parental career orientation scores are equal to or less than those under two conditions of parental educational equality: M = F = 11-, M = F = 12.

c. Parental career orientation scores vary inversely with family size. The intensity of this relationship is strongest in the lower and weakest in the upper SES categories.

Tables 12 and 13 present, respectively, the reported paternal and maternal educational aspirations and expectations of each parent for the Ss by family size and socioeconomic status.

These tables reveal that:

1. With socioeconomic status collapsed, there is an overall tendency for both paternal and maternal educational aspirations and expectations to vary inversely with family size. (See the row "Averages." These relationships were tested with Chi square and all were found significant beyond the .001 level. (See Table 14 for the computed Chi square values.)

2. With socioeconomic status considered:

    a. Paternal and maternal educational aspirations are virtually independent of family size in the Upper Middle category while there is some tendency, though not statistically significant, (see Table 14 for Chi square values) for paternal and maternal educational expectations to vary inversely with family size.

    b. Paternal and maternal educational aspirations and expectations are not independent of family size in any of the other three socioeconomic status categories and vary, as hypothesized, inversely with family size in these three SES categories.

TABLE 12

PERCENT OF RESPONDENTS REPORTING PATERNAL EDUCATIONAL ASPIRATIONS AND EXPECTATIONS TO FOUR OR MORE YEARS OF COLLEGE, BY HOLLINGSHEAD SOCIOECONOMIC STATUS AND FAMILY SIZE

Socioeconomic Status	Educational Dimension	Family Size			Averages
		Small	Medium	Large	
Upper Middle	Aspiration	80.9	90.1	80.0	84.5
	Expectation	72.6	72.5	60.0	70.0
Lower Middle	Aspiration	76.6	75.0	68.6	74.6
	Expectation	53.2	51.8	42.1	50.7
Upper Working	Aspiration	61.0	58.7	45.7	56.8
	Expectation	37.8	32.1	19.7	31.6
Lower Working	Aspiration	48.8	39.2	33.8	40.8
	Expectation	22.4	13.2	11.2	15.7
Averages	Aspiration	63.8	60.2	48.0	58.8
	Expectation	41.0	35.1	23.5	34.7

TABLE 13

PERCENT OF RESPONDENTS REPORTING MATERNAL EDUCATIONAL ASPIRATIONS AND EXPECTATIONS TO FOUR OR MORE YEARS OF COLLEGE, BY HOLLINGSHEAD SOCIOECONOMIC STATUS AND FAMILY SIZE

Socioeconomic Status	Educational Dimension	Family Size Small	Family Size Medium	Family Size Large	Averages
Upper Middle	Aspiration	84.5	86.8	84.4	85.4
	Expectation	75.0	71.4	64.4	71.3
Lower Middle	Aspiration	76.2	75.9	62.7	73.7
	Expectation	56.3	53.7	41.1	52.6
Upper Working	Aspiration	61.5	59.6	46.7	57.6
	Expectation	38.9	32.3	20.4	32.3
Lower Working	Aspiration	53.3	40.0	36.2	43.3
	Expectation	24.2	12.3	14.8	17.0
Averages	Aspiration	65.1	60.7	48.6	59.7
	Expectation	42.8	35.3	25.0	35.9

Chi square and contingency coefficient values were computed for paternal and maternal educational expectations for each of the four socioeconomic status categories. The results of these tests, as reported in Table 14, reveal that:

1. Parental educational expectations are independent of family size in the Upper Middle category, but are not independent of family size in the Lower Middle, Upper or Lower Working categories.
2. The intensity of the relationship between family size and parental educational expectations, as measured by the contingency coefficient, is stronger in the Lower Working category than in any of the other three categories.

Because of the lack of a significant relationship between family size and parental educational expectations in the Upper Middle category, these findings are not fully consistent with the research hypothesis and thus do not permit the rejection of its null form, i.e., within each social status category, parental career orientations vary independently of or positively with family size. The data do permit, however, the rejection of a revised null hypothesis, i.e., within the Lower Middle, Upper Working, and Lower Working categories, parental career orientation scores vary independently of or positively with family size, and, the intensity of this relationship is independent of or stronger in the upper and weaker in the lower socioeconomic status categories.

TABLE 14

RESULTS OF CHI SQUARE TESTS OF RELATIONSHIP BETWEEN FAMILY SIZE AND PARENTAL EDUCATIONAL ORIENTATIONS FOR Ss

Dependent Variable	Hollingshead Socioeconomic Status	Computed Chi Square Values	Corrected Contingency Coefficient	Probability that Relationship is Due to Chance
Paternal				
Educ. Asps.	All 4	59.92	.206	less than .001[b]
Educ. Exps.	All 4	96.42	.268	less than .001
Educ. Exps.[a]	Upper Middle	7.29	.260	between .20 and .10
	Lower Middle	10.16	.199	between .05 and .02
	Upper Working	21.24	.184	less than .001
	Lower Working	30.69	.310	less than .001
Maternal				
Educ. Asps.	All 4	64.33	.214	less than .001
Educ. Exps.	All 4	93.55	.257	less than .001
Educ. Exps.[a]	Upper Middle	8.79	.283	between .10 and .05
	Lower Middle	13.56	.225	between .01 and .001
	Upper Working	44.39	.252	less than .001
	Lower Working	28.22	.291	less than .001

[a] Within SES category Chi square values computed only for parental educational expectations.

[b] Each table was 3 x 3 thus yielding 4 df.

Hypotheses Regarding Adolescent Career Orientations

H_3: Adolescent career orientation scores vary positively with socioeconomic status.

Individual Correlation Analysis

The predictor variable for these correlations was the Duncan SEI score designating the social status of the family and assigned on the basis of the occupation of the father.

One restriction was placed on this analysis: those Ss who did not respond to one or more of the four dependent variables were excluded from the correlation. This restriction reduced the size of the sample from 2853 to 2300 or 80.6 percent of the original N.

Four criterion variables were correlated with the predictor variable. Those variables and the correlation coefficients are:

1. Socioeconomic status aspiration of the S as per the Duncan SEI: = .253
2. Socioeconomic status expectation of the S as per the Duncan SEI: = .350
3. Educational expectation of the S as per the Hollingshead category score: = -.382
4. Occupational expectation of the S as per the Hollingshead category score: = -.341

Each coefficient is significant beyond the .0005 level with a one tailed test. The minus correlations for the two Hollingshead expectations occur because a score of one designates a "high," a score of seven a "low" career orientation. The coefficients thus provide evidence adequate to reject the null hypothesis that adolescent career orientations vary independently of or inversely with socioeconomic status.

Category Correlation Analysis

The independent variable for the correlations reported in Table 15 is the Duncan midpoint SEI scores for each of the 18 social status categories. The dependent variables are those reported in the stubhead of the table. Inspection of the table reveals that as per the hypothesis:

1. The percent of Ss reporting occupational career orientations to high status positions varies positively with socioeconomic status.
2. The percent of Ss reporting educational career orientations to any form of education beyond high school or to four or more years of college varies positively with socioeconomic status.

The statistical significance of these coefficients thus provides evidence to reject the null hypothesis that adolescent career orientations vary independently of or inversely with socioeconomic status. Furthermore, the magnitude of these coefficients provides evidence adequate to indicate that on a category basis the percent of adolescents with specified occupational and educational orientations can be reliably predicted from the average socioeconomic score designating the stratification category in which the family of the adolescents hold membership. For this purpose, the following two regression

TABLE 15

PERCENT OF RESPONDENTS REPORTING SPECIFIED CAREER ORIENTATIONS, BY DUNCAN SOCIOECONOMIC SCORES

Midpoint SEI Scores	Aspirations				Expectations			
	Hollingshead Occupation 1,2,3	College	Beyond High School	No Further than High School	Hollingshead Occupation 1,2,3	College	Beyond High School	No Further than High School
2	58.6	51.7	69.0	27.6	20.7	24.1	41.2	58.6
7	51.1	42.2	69.2	27.4	22.4	19.0	38.0	59.1
12	37.5	47.9	77.1	20.8	18.8	10.4	33.3	62.5
17	53.2	44.6	77.8	21.6	31.4	22.9	47.4	52.0
22	53.0	49.8	77.2	21.5	33.3	27.4	50.7	47.5
27	59.1	50.0	84.1	15.2	36.4	23.5	52.3	47.7
32	66.4	57.8	78.9	19.8	43.5	33.6	59.5	39.7
37	70.2	67.5	86.0	14.0	43.9	36.0	59.6	40.4
42	67.9	65.4	86.5	12.6	41.5	39.6	63.8	34.9
47	68.5	58.3	90.6	8.7	52.0	36.2	63.0	37.0
52	76.9	76.6	92.1	6.6	53.8	52.5	74.9	23.8
57	78.5	86.2	95.4	4.6	55.4	56.9	75.4	24.6
62	77.1	75.7	92.9	7.1	55.7	60.0	72.9	27.1
67	79.4	83.3	93.9	6.1	64.9	66.7	85.5	14.5
72	75.0	81.8	95.5	4.5	54.5	68.2	81.8	18.2
77	92.0	88.0	98.0	2.0	80.0	82.0	92.0	8.0
82	91.0	98.6	97.0	3.0	82.1	79.1	92.5	7.5
90	94.1	92.2	98.0	2.0	78.4	82.4	90.0	9.8
Pearsonian correlation with SEI	0.928	0.948	0.959	-0.961	0.966	0.967	0.977	-0.979
	Each coefficient significant beyond the .001 level							

equations for educational expectations are provided:

1. Equation for calculating percent of Ss per Duncan SEI category who expect to achieve some form of education beyond high school:

   $$Y = 35.87 + .672_{X_1}$$

   where X_1 is the midpoint SEI score for the Duncan status category.

2. Equation for calculating the percent of Ss per Duncan SEI category who expect to achieve four or more years of college education:

   $$Y = 8.15 + .825_{X_1}$$

   where X_1 is the midpoint SEI score for the Duncan category.

The relationship of adolescent career orientations to socioeconomic status was also tested with the use of the more conventional breakdown of social status into the four Hollingshead categories. Tables 16 and 17 present, respectively, the percent of Ss reporting specified educational and occupational career orientations for each of the Hollingshead categories. Table 18 presents the mean Duncan status expectation score for Ss by each of the four Hollingshead categories.

TABLE 16

PERCENT OF RESPONDENTS REPORTING SPECIFIED EDUCATIONAL ASPIRATIONS AND EXPECTATIONS BY HOLLINGSHEAD SOCIOECONOMIC STATUS

Educational Career Dimension	Hollingshead Socioeconomic Status Categories				Averages
	Upper Middle	Lower Middle	Upper Working	Lower Working	
Aspirations					
16 years	88.2	77.9	57.6	42.8	60.6
14 years	8.6	13.2	25.7	29.0	22.6
12 years or less	2.7	8.5	13.8	26.0	14.8
No Response	0.5	0.4	2.9	2.2	2.0
Expectations					
16+ years	78.6	57.0	34.9	19.4	39.1
14 years	12.7	20.3	24.0	22.9	22.1
12 years or less	8.2	21.9	40.2	56.0	37.8
No Response	0.5	0.8	0.9	1.7	1.0

TABLE 17

PERCENT OF RESPONDENTS REPORTING SPECIFIED OCCUPATIONAL ASPIRATIONS AND EXPECTATIONS BY HOLLINGSHEAD SOCIOECONOMIC STATUS

Occupational Career Dimension	Hollingshead Socioeconomic Status Categories				Averages
	Upper Middle	Lower Middle	Upper Working	Lower Working	
Aspirations					
Minor to Major Prof. and Adm.	88.8	77.6	65.1	49.8	66.0
Technical and Clerical	4.2	9.1	11.2	12.7	10.6
Skilled and Semi-Skilled	2.3	9.4	20.6	31.2	19.3
Unskilled	1.0	0.2	0.0	0.7	0.3
No Response	3.7	3.7	3.1	5.6	3.8
Expectations					
Minor to Major Prof. and Adm.	75.7	59.3	41.4	26.1	44.2
Technical and Clerical	7.5	11.3	12.6	12.4	11.9
Skilled and Semi-Skilled	4.2	14.5	28.9	37.7	26.0
Unskilled	1.4	1.4	1.7	3.7	2.1
No Response	11.2	13.5	15.4	20.1	15.8

3

TABLE 18

MEAN DUNCAN SEI STATUS EXPECTATION SCORES FOR Ss BY HOLLINGSHEAD SOCIOECONOMIC STATUS

Hollingshead Socioeconomic Status Categories	Mean Duncan SEI Expectation Scores
Upper Middle	63.16
Lower Middle	52.51
Upper Working	45.06
Lower Working	38.16
Grand Mean	46.42

F = 33.78 Df. = 3, 2681. Sig.: less than .001

The relationship between each dimension of the educational and occupational orientations and social status was tested with Chi square and found significant beyond the .001 level. The relationship between the Duncan SEI expectation scores and socioeconomic status was tested with the F test and found significant beyond the .001 level. Thus, again, the evidence is adequate to reject the null hypothesis that adolescent career orientations vary independently of or inversely with socioeconomic status.

H_4: The extent of the difference between adolescent aspiration and expectation scores varies inversely with socioeconomic status.

This hypothesis was tested by calculating for each of the 18 Duncan SEI categories the percent of those Ss who both aspired and expected to achieve four or more years of college. An inspection of Table 19 reveals that the proportion of *Ss* who actually expect to achieve their educational aspiration varies positively with social status, ranging from 45 percent in the two lowest SEI categories to about 85 percent in the two highest SEI categories. The correlation coefficient between the SEI midpoint scores and the percent of *Ss* per category who actually expect to achieve their educational aspiration is .917. Thus, at least for educational orientations the evidence is adequate to reject the null hypothesis that the extent of the difference between adolescent aspiration and expectation scores varies independently of or positively with socioeconomic status.

Within each of the *k* (k = 4) socioeconomic status categories:

a. Adolescent career orientation
scores vary positively with the
education of the mother and father.

In the testing of this hypothesis the four Hollingshead social status categories were collapsed into two: Upper and Lower Middle into Middle, Upper and Lower Working into Working. This was done in order to secure cell denominators of sufficient magnitude to permit the reliable testing of the hypothesis concerning the effect of parental educational discrepancies on adolescent career orientations.

Tables 20, 21, 22, and 23 reveal that adolescent educational and occupational aspirations and expectations

TABLE 19

PERCENT OF RESPONDENTS WHO EXPECT TO ACHIEVE THEIR EDUCATIONAL ASPIRATION OF FOUR OR MORE YEARS OF COLLEGE, BY DUNCAN 18 CATEGORY SEI SCORES

Duncan Midpoint SEI Scores	Percent of Ss. who both Aspire and Expect to Achieve Four or More Years of College	Duncan Midpoint SEI Scores	Percent of Ss who both Aspire and Expect to Achieve Four or More Years of College
90	83	42	61
82	88	37	53
77	93	32	59
72	83	27	47
67	80	22	55
62	79	17	52
57	66	12	22
52	69	7	44
47	61	2	46

TABLE 20

PERCENT OF RESPONDENTS REPORTING EDUCATIONAL ASPIRATIONS TO FOUR OR MORE YEARS OF COLLEGE, BY HOLLINGSHEAD SOCIOECONOMIC STATUS CATEGORIES AND EDUCATION OF PARENTS

Hollingshead Collapsed SES Categories	Education of Mother (Years)	Education of Father (Years)			Averages
		13+	12	11-	
Upper and Lower Middle	13+	92.2	60.0	100.0	87.0
	12	81.1	76.0	77.4	78.9
	11-	76.4	75.0	61.9	73.3
Averages		85.3	72.8	74.1	80.7
Upper and Lower Working	13+	88.2	75.0	65.8	72.3
	12	69.4	66.4	52.8	60.6
	11-	50.0	51.1	45.1	46.9
Averages		65.1	62.6	49.4	55.4
All SES Categories	13+	91.9	70.0	68.3	80.8
	12	78.8	68.6	54.7	66.1
	11-	65.3	55.0	45.7	50.2
Averages		81.4	64.9	50.7	62.5

TABLE 21

PERCENT OF RESPONDENTS REPORTING EDUCATIONAL EXPECTATIONS TO FOUR OR MORE YEARS OF COLLEGE, BY HOLLINGSHEAD SOCIOECONOMIC STATUS CATEGORIES AND EDUCATION OF PARENTS

Hollingshead Collapsed SES Categories	Education of Mother (Years)	Education of Father (Years)			Averages
		13+	12	11-	
Upper and Lower Middle	13+	79.6	75.0	83.3	78.9
	12	64.6	55.0	48.3	59.8
	11-	61.8	50.0	38.0	53.3
Averages		70.7	57.7	48.2	65.0
Upper and Lower Working	13+	58.8	55.0	50.0	53.1
	12	51.0	42.4	25.3	35.3
	11-	30.0	24.0	21.6	22.6
Averages		44.3	38.1	25.0	31.2
All SES Categories	13+	78.0	61.7	52.4	68.1
	12	62.0	45.4	27.1	42.7
	11-	48.4	28.3	22.2	26.4
Averages		65.7	42.6	26.3	39.5

TABLE 22

PERCENT OF RESPONDENTS REPORTING OCCUPATIONAL ASPIRATIONS TO MINOR OR MAJOR PROFESSIONAL OR ADMINISTRATIVE POSITIONS, BY HOLLINGSHEAD SOCIOECONOMIC CATEGORIES AND EDUCATION OF PARENTS

Hollingshead Collapsed SES Categories	Education of Mother (Years)	Education of Father (Years) 13+	12	11-	Averages
Upper and Lower Middle	13+	91.1	89.5	85.7	90.6
	12	79.1	76.7	87.1	78.9
	11-	68.5	72.1	61.9	68.6
Averages		82.9	78.1	78.0	81.1
Upper and Lower Working	13+	81.3	77.2	76.4	77.2
	12	72.9	68.6	61.9	65.9
	11-	62.9	62.8	50.6	54.3
Averages		70.7	67.8	56.5	61.7
All SES Categories	13+	90.6	81.2	77.2	85.0
	12	77.9	70.5	63.9	69.8
	11-	66.3	64.4	51.0	56.1
Averages		80.7	70.1	57.7	67.1

TABLE 23

PERCENT OF RESPONDENTS REPORTING OCCUPATIONAL EXPECTATIONS TO MINOR OR MAJOR PROFESSIONAL OR ADMINISTRATIVE POSITIONS, BY HOLLINGSHEAD SOCIOECONOMIC CATEGORIES AND EDUCATION OF PARENTS

Hollingshead Collapsed SES Categories	Education of Mother (Years)	Education of Father (Years)			Averages
		13+	12	11-	
Upper and Lower Middle	13+	76.3	78.9	85.7	77.0
	12	63.2	58.9	64.5	61.8
	11-	51.8	53.5	33.3	49.2
Averages		67.4	61.4	55.9	64.7
Upper and Lower Working	13+	37.5	54.4	61.1	55.7
	12	52.1	44.5	23.7	40.2
	11-	31.4	39.4	29.6	32.2
Averages		42.4	44.1	33.3	38.0
All SES Categories	13+	73.3	62.4	63.3	68.2
	12	61.0	47.9	36.1	46.7
	11-	43.8	41.8	29.7	34.4
Averages		62.9	48.0	34.5	45.5

vary positively with the educational attainment of each parent both with SES collapsed and also within each of the two SES categories.

The significance of each relationship was tested with Chi square and as Tables 24 and 25 reveal all relationships but two were found statistically significant beyond the .001 level. The one exception was significant between .01 and .001, the other between .20 and .10.

With the one exception noted above of significance between .20 and .10, the evidence is adequate to reject the null hypothesis that within each SES category adolescent career orientations vary independently of or inversely with the educational attainment of each parent.

b. Adolescent career orientation scores are greater for families characterized by marked maternal educational superiority than for families characterized by marked paternal educational superiority or by parental educational equality. The intensity of this relationship is strongest in the lower and weakest in the upper SES categories.

Tables 26, 27, 28, and 29 present in percentage form the data pertinent to this hypothesis.

These tables reveal that:

1. Adolescent career orientations, as measured in percentage form, are considerably higher under conditions of marked MES than under conditions of marked PES.
2. Adolescent career orientations, as measured in percentage form, are considerably higher under conditions of marked MES than for the social status category as a whole. This is, as expected, not true for career orientations under conditions of marked PES.

TABLE 24

RESULTS OF CHI SQUARE TESTS OF RELATIONSHIPS BETWEEN EDUCATIONAL ATTAINMENT OF EACH PARENT AND THE EDUCATIONAL ORIENTATION OF THE RESPONDENT

Independent and Dependent Variables	Hollingshead Socioeconomic Status	Computed Chi Square Values	Corrected Contingency Coefficient	Probability that Relationship is Due to Chance
Educ. of Father and:	All Categories Combined			
Educ. Asp. of S.		148.48	.365	less than .001[a]
Educ. Exp. of S.		238.86	.428	less than .001
Educ. of Mother and:				
Educ. Asp. of S.		127.42	.317	less than .001
Educ. Exp. of S.		203.38	.394	less than .001
Educ. of Father and:	Upper and Lower Middle			
Educ. Asp. of S.		16.82	.222	less than .001
Educ. Exp. of S.		17.36	.225	less than .001
Educ. of Mother and:	Upper and Lower Middle			
Educ. Asp. of S.		11.05	.181	less than .01
Educ. Exp. of S.		31.74	.301	less than .001
Educ. of Father and:	Upper and Lower Working			
Educ. Asp. of S.		33.93	.200	less than .001
Educ. Exp. of S.		43.08	.222	less than .001
Educ. of Mother and:	Upper and Lower Working			
Educ. Asp. of S.		53.23	.244	less than .001
Educ. Exp. of S.		74.77	.292	less than .001

[a] Each table was 3 x 2: Three levels of parental educational attainment, two levels of subject educational orientation: four or more years of college, two years of education beyond high school or less. Thus, df = 2.

TABLE 25

RESULTS OF CHI SQUARE TESTS OF RELATIONSHIPS BETWEEN EDUCATIONAL ATTAINMENT OF EACH PARENT AND THE OCCUPATIONAL ORIENTATION OF THE RESPONDENT

Independent and Dependent Variables	Hollingshead Socioeconomic Status	Computed Chi Square Values	Corrected Contingency Coefficient	Probability that Relationship is Due to Chance
Educ. of Father and:	All Categories Combined			
Occup. Asp. of S.		105.63	.275	less than .001[a]
Occup. Exp. of S.		140.19	.335	less than .001
Educ. of Mother and:				
Occup. Asp. of S.		120.57	.294	less than .001
Occup. Exp. of S.		150.49	.346	less than .001
Educ. of Father and:	Upper and Lower Middle			
Occup. Asp. of S.		7.54	.146	between .20 and .10
Occup. Exp. of S.		13.97	.202	between .01 and .001
Educ. of Mother and:	Upper and Lower Middle			
Occup. Asp. of S.		34.98	.296	less than .001
Occup. Exp. of S.		39.46	.329	less than .001
Educ. of Father and:	Upper and Lower Working			
Occup. Asp. of S.		23.80	.157	less than .001
Occup. Exp. of S.		22.93	.168	less than .001
Educ. of Mother and:	Upper and Lower Working			
Occup. Asp. of S.		41.76	.206	less than .001
Occup. Exp. of S.		44.91	.228	less than .001

[a] Each table was a 3 x 3. Three levels of parental educational attainment, three levels of occupational orientation, i.e., minor to major professional or administrative, technical and minor white collar, and semi-skilled and unskilled blue collar. Thus, there were 4 df.

TABLE 26

THE EFFECTS OF PARENTAL EDUCATIONAL DISCREPANCIES ON THE EDUCATIONAL ASPIRATIONS AND EXPECTATIONS OF ADOLESCENTS, PERCENT OF RESPONDENTS REPORTING EDUCATIONAL ASPIRATIONS AND EXPECTATIONS TO FOUR OR MORE YEARS OF COLLEGE, BY HOLLINGSHEAD SOCIOECONOMIC STATUS CATEGORIES: MIDDLE AND WORKING

Hollingshead Socioeconomic Status	Educational Dimension of Respondent	Parental Educational Discrepancy		Difference	Mean % Per SES Category	Differences	
		Mother 13+ Father 11-	Father 13+ Mother 11-	MES - PES[a]		MES minus Category	PES minus Category
Upper and Lower Working	Aspirations	65.8	50.0	+15.8	55.4	+10.4	- 5.4
	Expectations	50.0	30.0	+20.0	31.2	+18.8	- 1.2
Upper and Lower Middle	Aspirations	100.0	76.4	+23.6	80.7	+19.3	- 4.3
	Expectations	83.3	61.8	+21.5	65.0	+18.3	- 3.2

[a] Percent respondents in the MES category reporting college career orientations minus percent respondents in the PES category reporting college career orientations.

TABLE 27

THE EFFECTS OF PARENTAL EDUCATIONAL DISCREPANCIES ON THE OCCUPATIONAL ASPIRATIONS AND EXPECTATIONS OF ADOLESCENTS, PERCENT OF RESPONDENTS REPORTING OCCUPATIONAL ASPIRATIONS AND EXPECTATIONS TO MINOR OR MAJOR PROFESSIONAL OR ADMINISTRATIVE POSITIONS, BY HOLLINGSHEAD SOCIOECONOMIC STATUS CATEGORIES: MIDDLE AND WORKING

Hollingshead Socioeconomic Status	Occupational Dimension of Respondent	Parental Educational Discrepancy		Difference	Mean % Per SES Category	Differences	
		Mother 13+ Father 11-	Father 13+ Mother 11-	MES - PES[a]		MES minus Category	PES minus Category
Upper and Lower Working	Aspirations	76.4	62.9	+13.5	61.7	+14.7	+ 1.2
	Expectations	61.1	31.4	+29.7	32.3	+28.9	- 0.8
Upper and Lower Working	Aspirations	85.7	68.5	+17.2	81.1	+ 4.6	-12.6
	Expectations	85.7	51.8	+33.9	64.7	+21.0	-12.9

[a] Percent respondents in the MES category reporting high status occupational career orientations minus percent respondents in the PES category reporting high status occupational career orientations.

TABLE 28

COMPARISON OF THE EFFECTS OF MARKED MATERNAL EDUCATIONAL SUPERIORITY WITH PARENTAL EDUCATIONAL EQUALITY, PERCENT OF RESPONDENTS REPORTING ASPIRATIONS AND EXPECTATIONS TO FOUR OR MORE YEARS OF COLLEGE, BY HOLLINGSHEAD SOCIOECONOMIC STATUS CATEGORIES: MIDDLE AND WORKING

Hollingshead Socioeconomic Status	Educational Dimension of Respondent	Col. 1	Col. 2	Col. 3	Col. 4	Differences		
		Maternal Educational Superiority	Parental Educational Equality			Col. 1 minus Col. 2	Col. 1 minus Col. 3	Col. 1 minus Col. 4
		M = 13+ Yrs. F = 11- Yrs.	M = 11- F = 11-	M = 12 F = 12	M = 13+ F = 13+			
Upper and Lower Working	Aspirations	65.8	45.1	66.4	88.2	+20.7	- 0.6	-22.4
	Expectations	50.0	21.6	42.4	58.8	+28.4	+ 7.6	- 8.8
Upper and Lower Middle	Aspirations	100.0	61.9	76.0	92.2	+38.1	+24.0	+ 7.8
	Expectations	83.3	38.0	55.0	79.6	+45.3	+28.3	+ 3.7

TABLE 29

COMPARISON OF THE EFFECTS OF MARKED MATERNAL EDUCATIONAL SUPERIORITY WITH PARENTAL EDUCATIONAL EQUALITY, PERCENT OF RESPONDENTS REPORTING ASPIRATIONS AND EXPECTATIONS TO MINOR OR MAJOR PROFESSIONAL OR ADMINISTRATIVE POSITIONS, BY HOLLINGSHEAD SOCIOECONOMIC STATUS CATEGORIES: MIDDLE AND WORKING

Hollingshead Socioeconomic Status	Occupational Dimension of Respondent	Col. 1	Col. 2	Col. 3	Col. 4	Differences		
		Maternal Educational Superiority	Parental Educational Equality					
		M = 13+ Yrs. F = 11- Yrs.	M = 11- F = 11-	M = 12 F = 12	M = 13+ F = 13+	Col. 1 minus Col. 2	Col. 1 minus Col. 3	Col. 1 minus Col. 4
Upper and Lower Working	Aspirations	76.4	50.6	68.6	81.3	+25.8	+ 7.8	- 4.9
	Expectations	61.1	29.6	44.5	37.5	+31.5	+16.6	+23.6
Upper and Lower Middle	Aspirations	85.7	61.9	76.7	91.1	+23.8	+ 9.0	- 5.4
	Expectations	85.7	33.3	58.9	76.3	+52.4	+26.8	+ 9.4

3. Adolescent career orientations, as measured in percentage form, with one minor exception (Table 27, Upper and Lower Working, Educational Aspirations), are higher under conditions of marked MES than under two conditions of parental educational equality, i.e., M = F = 11-, M = F = 12.

4. Contrary to the hypothesis, there is no evidence to indicate an inverse relation with social status of the intensity of the effect of marked MES.

On the basis of these data the null hypothesis that adolescent career orientations under conditions of marked MES are equal to or less than those under conditions of marked PES can be rejected. The null hypothesis that the intensity of the effect of marked MES is independent of or is stronger in the upper and weaker in the lower SES categories cannot be rejected. It is possible, however, that the collapsing of the two categories at either extreme of the SES scale into the two more central categories may have masked the hypothesized low intensity of marked MES in the Upper Middle and the high intensity of marked MES in the Lower Working categories with the possibly equal intensities of marked MES in the Lower Middle and Upper Working categories.

Finally, the data do not provide evidence adequate to reject the stated general null hypothesis that under conditions of marked MES adolescent career orientations are equal to or less than those under all conditions of parental educational equality. However, with the one minor exception noted in conclusion 3 on the preceding page, the data do provide evidence for the rejection of a revised and more specific null hypothesis that under conditions of marked MES adolescent career orientations are equal to or less than those under two conditions of parental educational equality, i.e., M = F = 11-, M = F = 12.

c. Adolescent career orientation scores vary inversely with family size and ordinal position.

Tables 30 and 31 present in percentage form the data for the relationship of family size to adolescent educational and occupational career orientations. The results of the Chi square and contingency coefficient tests are shown in Tables 32 and 33. Table 34 presents the mean Duncan SEI expectation scores of the Ss by family size for each social status category.

From these tables, the following conclusions may be drawn:

1. With SES collapsed, adolescent educational and occupational career orientations vary inversely with family size. This inverse relationship may be noted in several ways:

   a. Contingency Coefficients for family size and:

      1) Educational aspirations: = -.149
      2) Educational expectations: = -.240
      3) Occupational aspirations: = -.169
      4) Occupational expectations: = -.169

   NOTE: The minus sign is affixed to the contingency coefficient on the basis of an inspection of the percentage data presented in the tables and on the basis of an inspection of the frequency data used in calculating the Chi square values.

TABLE 30

PERCENT OF RESPONDENTS REPORTING EDUCATIONAL ASPIRATIONS AND EXPECTATIONS TO FOUR OR MORE YEARS OF COLLEGE, BY HOLLINGSHEAD SOCIOECONOMIC STATUS AND FAMILY SIZE

Hollingshead Socioeconomic Status	Family Size Small (1,2)	Medium (3,4)	Large (5+)	Averages
Aspirations				
Upper Middle	90.5	90.0	80.0	88.2
Lower Middle	79.3	78.8	72.5	77.9
Upper Working	62.7	60.4	52.2	59.6
Lower Working	48.0	42.1	38.7	43.1
Averages	65.8	62.4	53.1	61.5
Expectations				
Upper Middle	82.1	82.4	64.4	78.6
Lower Middle	62.5	56.6	45.1	57.2
Upper Working	42.0	34.1	23.9	34.9
Lower Working	27.3	16.5	13.2	19.2
Averages	46.9	38.5	26.7	39.1

TABLE 31

PERCENT OF RESPONDENTS REPORTING OCCUPATIONAL ASPIRATIONS AND EXPECTATIONS TO MINOR OR MAJOR PROFESSIONAL OR ADMINISTRATIVE POSITIONS, BY HOLLINGSHEAD SOCIOECONOMIC STATUS AND FAMILY SIZE

Hollingshead Socioeconomic Status	Family Size Small (1,2)	Medium (3,4)	Large (5 +)	Averages
Aspirations				
Upper Middle	89.3	92.3	82.2	89.1
Lower Middle	75.4	79.2	75.5	76.8
Upper Working	71.9	63.1	56.0	64.9
Lower Working	54.6	48.0	46.6	49.8
Averages	70.6	65.2	57.9	65.7
Expectations				
Upper Middle	77.1	78.0	71.1	76.3
Lower Middle	61.0	55.7	60.0	58.8
Upper Working	46.1	41.4	31.4	41.1
Lower Working	30.4	23.6	23.0	25.7
Averages	48.8	43.2	36.0	43.8

TABLE 32

RESULTS OF CHI SQUARE TESTS OF RELATIONSHIPS BETWEEN FAMILY SIZE AND EDUCATIONAL ASPIRATIONS AND EXPECTATIONS OF RESPONDENTS

Dependent Variable	Hollingshead Socioeconomic Status	Computed Chi Square Values	Corrected Contingency Coefficient	Probability that Relationship is Due to Chance
Educational Aspirations	All 4	33.77	.149	less than .001[a]
Educational Expectations	All 4	91.18	.240	less than .001
Educational Aspirations	Upper Middle			Could not test. Three expected cell values less than five.
	Lower Middle	3.42	.108	between .50 and .30
	Upper Working	12.20	.129	between .02 and .01
	Lower Working	5.17	.121	between .30 and .20
Educational Expectations	Upper Middle			Could not test. One expected cell value less than five.
	Lower Middle	9.28	.172	between .10 and .05
	Upper Working	39.30	.226	less than .001
	Lower Working	28.50	.276	less than .001

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[a] Each table was a 3 x 3. Three levels of family size, three levels of educational orientation.

TABLE 33

RESULTS OF CHI SQUARE TESTS OF RELATIONSHIPS BETWEEN FAMILY SIZE AND OCCUPATIONAL ASPIRATIONS AND EXPECTATIONS OF RESPONDENTS

Dependent Variable	Hollingshead Socioeconomic Status	Computed Chi Square Values	Corrected Contingency Coefficient	Probability that Relationship is Due to Chance
Occupational Aspirations	All 4	42.71	.169	less than .001[a]
Occupational Expectations	All 4	36.95	.169	less than .001
Occupational Aspirations	Upper Middle			Could not test. Five expected cell values less than five.
	Lower Middle	2.39	.080	between .70 and .50
	Upper Working	32.26	.206	less than .001
	Lower Working	9.17	.161	between .10 and .05
Occupational Expectations	Upper Middle			Could not test. Three expected cell values less than five.
	Lower Middle	2.89	.060	between .70 and .50
	Upper Working	23.42	.186	less than .001
	Lower Working	7.93	.168	between .10 and .05

[a] Each table was a 3 x 3. Three levels of family size, three levels of occupational orientation. DF. = 4.

b. Correlation Coefficients (N = 2300) for family size and:

1) SES Aspiration of Ss via Duncan SEI: = -.137
2) SES Expectation of Ss via Duncan SEI: = -.174
3) Educ. Exp. of Ss via Hh. Educ. Categs. = +.190
4) Occup. Exp. of Ss via Hh. Oc. Categs. = +.142

NOTE: The positive correlation of the Hollingshead educational and occupational categories with SES results from the fact, discussed earlier, that a "high" Hh. category score is, say, 1 or 2, and a "low" score is, say, a 6 or 7.

2. With socioeconomic status considered:

a. There is a tendency for educational aspirations to vary independently of family size. The inconclusive patterns of the occupational data permit no firm conclusions.

b. There is the hypothesized tendency for educational expectations not to be contingent upon family size in the Upper and Lower Middle status categories, and, to be contingent upon family size in the Upper and Lower Working categories. The same pattern would seem to be suggested for the status expectations of the Ss as presented in Table 34. Again, the inconclusive patterns of the occupational data permit no firm conclusions in regard to the relation between family size and occupational orientations.

c. There is the hypothesized inverse relationship between SES and the intensity of the effect of family size on educational expectations. That is, C is .276 in the Lower Working, .226 in the Upper Working, and .172 (not significant) in the Lower Middle. Again, the inconclusive patterns of the occupational data permit no firm conclusions regarding the relationship of family size to occupational orientations.

TABLE 34

MEAN DUNCAN SEI STATUS EXPECTATION SCORES FOR Ss BY HOLLINGSHEAD SOCIOECONOMIC STATUS AND FAMILY SIZE

Hollingshead Socioeconomic Status	Family Size			SES Means
	Small	Medium	Large	
Upper Middle	65.00	62.15	61.83	63.16
Lower Middle	54.64	51.73	50.30	52.51
Upper Working	48.39	45.88	38.07	45.06
Lower Working	43.27	34.04	36.78	38.16
Family Means	49.78	45.63	42.13	46.41

F test, Main effect of Family Size: F = 9.57, Df. = 2, 2681. Significance: less than .001. No interaction between Family Size and Socioeconomic Status. F = 1.30, Df. = 6,2681. Sig. None at .05.

In summary, the null hypothesis that adolescent career orientation scores vary independently of or positively with family size can be rejected only for educational expectations and social status expectations. The null hypothesis that the intensity of the effect of family size on career orientations varies independently of or positively with socioeconomic status can be rejected only for educational expectations. The data for educational aspirations and for occupational aspirations and expectations fail to reveal any consistent pattern from which valid generalizations could be drawn.

Table 35 presents, in percentage form, the data for the relationship of ordinal position to educational expectations:

TABLE 35

PERCENT OF RESPONDENTS REPORTING EDUCATIONAL EXPECTATIONS TO FOUR OR MORE YEARS OF COLLEGE, BY HOLLINGSHEAD SOCIOECONOMIC STATUS, FAMILY SIZE, AND ORDINAL POSITION

Hollingshead Socioeconomic Status	Family Size By No. of Children	Ordinal Position First Born	Second Born[a]	Inter-mediate	Last Born	Averages
Upper Middle	1	89.0				89.0
	2	87.2	70.4			80.3
	3 and 4	81.3	81.2	85.7	92.9	83.5
	5+	60.0	80.0	64.3	60.0	65.9
	Averages	81.7	76.3	71.4	84.2	79.5
Lower Middle	1	66.0				66.0
	2	62.5	58.5			60.6
	3 and 4	56.4	52.9	54.5	63.3	56.1
	5+	53.1	42.9	40.6	41.2	45.1
	Averages	60.6	54.3	44.2	55.3	57.0
Upper Working	1	39.9				39.9
	2	44.3	41.0			42.8
	3 and 4	34.4	29.9	36.8	37.9	34.1
	5+	25.6	23.7	19.4	31.4	23.6
	Averages	37.4	33.9	24.0	36.5	34.9
Lower Working	1	27.5				27.5
	2	25.8	28.9			27.2
	3 and 4	17.9	20.0	8.3	14.7	16.5
	5+	16.3	8.7	11.7	17.1	13.2
	Averages	22.6	22.3	11.0	15.5	19.2
Totals	1	47.4				47.4
	2	48.1	45.0			46.7
	3 and 4	41.1	36.7	35.0	37.0	38.5
	5+	31.1	29.2	21.4	29.3	26.6
	Averages	43.4	39.4	24.6	34.9	39.1

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[a] For family size of two, second born includes the second or last born for the row "Averages," since this row does not control for family size.

Prior to analyzing the data in the table, two comments are in order:

1. As an inspection of Table 35 readily reveals, ordinal position bears no simple, linear relationship to career orientations. Instead, the relationship seems to be one which is curvilinear in nature and which interacts both with social status and family size, the latter itself, as noted previously, interacting with social status.
2. Because of the apparent complex nature of this relationship, the writer decided to present a descriptive analysis and only for educational expectations. Educational expectations were selected as the dependent variable because, as observed previously, there are a number of reasons for believing that educational data are more valid than occupational data, and because educational expectations bear the closest resemblance to the actual behavioral studies on ordinal position reported in the review of the literature.

Observing first at the base of Table 35 the row "Totals, Averages," it can be seen that with SES and family size collapsed, ordinal position is related to adolescent educational expectations in a curvilinear "dish shaped" fashion. That is, the ordinal position with the highest percent of Ss reporting college expectations is First Born, followed by Second Born. The ordinal position with the lowest percent is Intermediate Born, while the percent for Last Born falls about two thirds of the way up between Intermediate Born and Second Born.

Of course, there is the possibility that these results might be spurious since: (1) it has been demonstrated previously that family size is inversely related to career orientations, and (2) all Ss from a family size of one are first borns. To determine whether the initial relationship is spurious, we can control for family size and observe if the initial relationship between ordinal position and educational expectations is "washed out" or removed. Reference to the "Totals" row at the base of the table indicates that for family sizes 2, 3 and 4, and 5+ the initial curvilinear "dish shaped" relationship, while reduced in magnitude, is still present. It may be thus concluded that the relationship between ordinal position and educational expectations is not a function of the intervening and potentially confounding variable of family size. Parenthetically, it should be noted that the control for family size reduces the relationship between ordinal position and educational expectations more so than does the control for ordinal position reduce the relationship between family size and educational expectations, thus indicating that of the two family size is a determinant of greater magnitude than is ordinal position.

The third control which can be invoked is that of social status. Looking now at the main body of the table, the relationship of ordinal position to educational expectations may be examined for each of the four family sizes within each of the four SES categories and, with family size collapsed, for each of the four SES categories as a whole. The patterns which then emerge may be summarized as follows:

1. Inspection of the "Average" row for each socioeconomic status category reveals that the curvilinear dish shaped relationship of ordinal position to educational expectations, originally found at the base of the table with all controls collapsed, is still present within each SES category with only family size collapsed. That is, SES does not itself remove the relationship of ordinal position to educational expectations.

2. With family size as a control, this same dish shaped relation is retained for family sizes 3 and 4, 5+, except that for the Upper Middle 3 and 4, Lower Middle 3 and 4, Upper Working 3 and 4 and 5+, and Lower Working 5+, the percent of Ss reporting a college expectation is now greater among Last Born than among First Born.

In conclusion, it can be noted that while adolescent educational expectations do not appear to vary independently of ordinal position, the pattern of variation revealed by the data is sufficiently complex as to warrant the rejection not of the liberal directional null hypothesis that educational expectations vary independently of or inversely with ordinal position, but of the more conservative non-direction null hypothesis that educational expectations vary independently of ordinal position.

d. Adolescent career orientation scores vary positively with the intensity of parental pressure for achievement.

As noted in the chapter on theoretical formulation, this variable was tapped with a stimulus question which asked the S to indicate how often each parent urged him to continue his education beyond high school. Four response alternatives were available: (1) Never, (2) Sometimes, (3) Often, and (4) Constantly. Statistical tests revealed that while each of the four levels made significant differences in the percent of Ss with college orientations, the largest differences were between (a) never--sometimes and (b) often--constantly. Consequently, for the majority of the analyses presented below, the four original levels have been collapsed into two: never--sometimes, referred to as "low" pressure, and often--constantly, referred to as "high" pressure.

Before analyzing the extent to which parental pressure functions as a determinant of adolescent career orientations, it might be rewarding to investigate two structural determinants of the parental pressure variable itself: social status and family size.

Tables 36 and 37 present the distribution of parental pressure by socioeconomic status. Table 38 presents, for each of the four Hollingshead SES categories, the distribution of parental pressure by family size.

These tables reveal that parental pressure varies not independently but positively with socioeconomic status and that with a control for social status parental pressure varies not independently but negatively with family size, except in the Upper Middle category where, for some yet unknown reason, it varies positively. These two conclusions are reflected in the following bivariate correlation coefficients. (N = 2300 and socioeconomic status is defined as the Duncan SEI score for the family)

TABLE 36

PERCENT OF RESPONDENTS REPORTING SPECIFIED INTENSITIES OF PATERNAL AND MATERNAL ACHIEVEMENT PRESSURE, BY HOLLINGSHEAD SOCIOECONOMIC STATUS

Intensity	Parent	Socioeconomic Status				Averages
		Upper Middle	Lower Middle	Upper Working	Lower Working	
High	Father	50.0	40.0	28.0	21.0	30.6
	Mother	41.6	40.6	29.9	24.5	31.8
Moderate	Father	33.2	36.3	36.1	27.7	34.0
	Mother	39.7	35.5	38.0	34.4	36.8
Low	Father	11.2	14.7	23.7	28.5	22.0
	Mother	14.5	18.3	24.6	28.0	23.3
None	Father	5.6	9.0	12.2	22.8	13.4
	Mother	4.2	5.6	7.5	13.1	8.1
Totals	Father	100.0	100.0	100.0	100.0	100.0
	Mother	100.0	100.0	100.0	100.0	100.0

Statistical Date for Paternal Pressure:	Computed Chi Square = 174.89 Corrected Contingency Coefficient = .294 Significance: beyond .001 with 9 df.
Statistical Data for Maternal Pressure:	Computed Chi Square = 82.60 Corrected Contingency Coefficient = .208 Significance: beyond .001 with 9 df.

TABLE 37

PERCENT OF RESPONDENTS REPORTING HIGH (HIGH AND MODERATE) PATERNAL AND MATERNAL ACHIEVEMENT PRESSURE BY DUNCAN EIGHTEEN SEI CATEGORIES

Duncan Category	High Maternal Pressure	High Paternal Pressure	Maternal minus Paternal
2	69.0	34.5	+34.5
7	52.3	41.8	+10.5
12	56.3	47.9	+ 8.4
17	60.0	51.1	+ 8.9
22	66.2	58.4	+ 7.8
27	62.9	55.3	+ 7.6
32	66.4	57.3	+ 9.1
37	70.2	69.3	+ 0.9
42	66.4	62.9	+ 3.5
47	65.4	66.1	- 0.7
52	74.6	76.2	- 1.6
57	80.0	80.0	0.0
62	74.3	70.0	+ 4.3
67	78.9	79.8	- 0.9
72	72.7	77.3	- 4.6
77	78.0	84.0	- 6.0
82	80.6	82.1	- 1.5
90	86.3	86.3	0.0

Pearsonian Category Correlations:		
	SEI Midpoint scores with Percent Ss reporting High Paternal Pressure:	.957
	SEI Midpoint scores with Percent Ss reporting High Maternal Pressure:	.867

TABLE 38

PERCENT OF RESPONDENTS REPORTING SPECIFIED LEVELS OF PARENTAL ACHIEVEMENT PRESSURE, BY HOLLINGSHEAD SOCIOECONOMIC STATUS AND FAMILY SIZE

Hollingshead	Paternal Pressure	Maternal Pressure	Family Size			Averages
			Small	Medium	Large	
Upper Middle	High	High	72.8	76.4	77.3	75.2
		Low	6.2	10.1	6.8	7.9
	Low	High	7.4	4.5	6.8	6.1
		Low	13.6	9.0	9.1	10.8
	High	All	79.0	86.5	84.1	83.1
	All	High	80.2	80.9	84.1	81.3
Lower Middle	High	High	71.9	63.8	57.8	66.2
		Low	7.6	12.1	10.8	9.9
	Low	High	10.0	7.2	14.7	9.9
		Low	10.5	16.9	16.7	14.0
	High	All	79.5	75.9	68.6	76.1
	All	High	81.9	71.0	72.5	76.1
Upper Working	High	High	64.2	54.9	44.5	56.2
		Low	6.8	8.2	9.2	7.9
	Low	High	10.0	12.5	13.1	11.7
		Low	19.0	24.4	33.2	24.2
	High	All	71.0	63.1	53.7	64.1
	All	High	74.2	67.4	57.6	67.9
Lower Working	High	High	50.0	41.0	35.1	42.2
		Low	4.8	6.1	8.9	6.5
	Low	High	20.7	15.7	13.6	16.7
		Low	24.5	37.2	42.4	34.6
	High	All	54.8	47.1	44.0	48.7
	All	High	70.7	56.7	48.7	58.9

1. SES with paternal pressure: +.254, significant beyond .001
2. SES with maternal pressure: +.168, significant beyond .001
3. Family size with pat. pr.: -.145, significant beyond .001
4. Family size with mat. pr.: -.157, significant beyond .001

Table 37 reveals another aspect of socioeconomic status as a determinant of parental pressure; namely, that as socioeconomic status declines, the importance of the father as a source of achievement pressure diminishes far more rapidly than does the importance of the mother. That is, in the higher Duncan categories, an approximately equal percent of Ss report high paternal and maternal pressure. However, in the lower Duncan categories, a considerably greater proportion of Ss report high maternal pressure than report high paternal pressure. This pattern is reflected in the correlation coefficients reported above where the r for SES and maternal pressure is lower than is that for SES and paternal pressure.

Prior to examining in detail the relationship between parental pressure and adolescent career orientations, it is rather important to note that although the stimulus item referred only to parental pressure in regard to the educational intentions of the S, Tables 40 and 42 reveal that the variable is also a determinant of the occupational orientations and of the status expectations of the S. Evidently, then, this stimulus item has tapped and measured a somewhat diffuse as opposed to a

highly specific form of parental achievement pressure.

Returning now to the discussion of parental pressure itself as a determinant of adolescent career orientations, Tables 39 and 40 present data on the relation of parental pressure to the educational and occupational orientations of the Ss. Table 41 presents the results of the Chi square tests on these data. Table 42 presents data on the relationship of parental pressure to the social status expectations of the Ss.

An inspection of Tables 39, 40, and 42 shows that:

1. Parental pressure is a relatively powerful within-SES category determinant of adolescent career orientations.

2. With but one minor exception (Table 41, Upper Middle, Low Paternal Pressure) the proportion of Ss, (or in the case of Table 41, the mean score), reporting a "high" career orientation is markedly greater under the condition of high paternal and maternal pressure than for the social status category as a whole.

3. With but the minor exception noted immediately above, the proportion of Ss, (or in the case of Table 41, the mean score), reporting a "high" career orientation is markedly less under the condition of low paternal and maternal pressure than it is for the social status category as a whole.

Considering the fact that the control for social status did not remove the positive relationship between intensity of parental pressure and career orientations, the data presented above perhaps would be adequate to reject the null hypothesis that adolescent career orientations vary independently of or negatively with the intensity of parental pressure.

TABLE 39

PERCENT OF RESPONDENTS REPORTING EDUCATIONAL ASPIRATIONS AND EXPECTATIONS TO FOUR OR MORE YEARS OF COLLEGE BY INTENSITY OF PATERNAL AND MATERNAL ACHIEVEMENT PRESSURE BY HOLLINGSHEAD SES

Hollingshead Socioeconomic Status	Intensity of Paternal Pressure				Averages
	High		Low		
	Maternal		Maternal		
	High	Low	High	Low	
Aspirations					
Upper Middle	93.1	82.4	76.9	65.2	88.3
Lower Middle	86.8	74.5	69.1	48.7	78.5
Upper Working	70.3	59.0	49.0	40.7	59.8
Lower Working	59.6	46.3	45.7	24.4	44.3
Averages	74.8	62.4	52.4	37.0	62.3
Expectations					
Upper Middle	82.6	64.7	76.9	65.2	79.0
Lower Middle	68.1	41.8	56.4	20.5	57.7
Upper Working	47.9	28.6	23.2	11.8	34.8
Lower Working	31.3	17.0	21.9	5.5	19.9
Averages	53.6	32.6	30.5	12.7	39.5

TABLE 40

PERCENT OF RESPONDENTS REPORTING OCCUPATIONAL ASPIRATIONS AND EXPECTATIONS TO MINOR OR MAJOR PROFESSIONAL OR ADMINISTRATIVE POSITIONS BY INTENSITY OF PATERNAL AND MATERNAL ACHIEVEMENT PRESSURE BY HOLLINGSHEAD SES

Hollingshead Socioeconomic Status	Intensity of Paternal Pressure: High Maternal High	 Low	Low Maternal High	 Low	Averages
Aspirations:					
Upper Middle	91.3	76.5	84.6	82.6	88.8
Lower Middle	83.2	78.2	72.7	53.8	77.6
Upper Working	73.1	62.9	56.8	51.2	65.1
Lower Working	60.0	46.3	55.2	35.5	49.8
Averages	75.2	64.7	60.1	47.3	66.0
Expectations					
Upper Middle	78.9	52.9	84.6	65.2	75.7
Lower Middle	67.6	52.7	49.0	32.1	59.3
Upper Working	52.1	37.1	33.5	21.7	41.4
Lower Working	37.7	31.7	28.6	9.7	26.1
Averages	56.2	41.3	36.6	20.5	44.2

TABLE 41

RESULTS OF CHI SQUARE TESTS OF RELATIONSHIPS BETWEEN PARENTAL PRESSURE AND EDUCATIONAL AND OCCUPATIONAL ASPIRATIONS AND EXPECTATIONS OF RESPONDENT, BY HOLLINGSHEAD SOCIOECONOMIC STATUS

Hollingshead Socioeconomic Status	Dependent Variables	Computed Chi Square Values	Corrected Contingency Coefficient	Probability that Relationship is Due to Chance
All Categories Combined	Occupational:			
	Aspirations	183.09	.324	less than .001[a]
	Expectations	287.41	.408	less than .001
	Educational:			
	Aspirations	369.25	.441	less than .001
	Expectations	549.07	.523	less than .001
Upper Middle	No Chi Square tests could be conducted because one or more expected cell values were five or less.			
Lower Middle	Occupational:			
	Aspirations	33.45	.310	less than .001
	Expectations	48.85	.387	less than .001
	Educational:			
	Aspirations	81.88	.455	less than .001
	Expectations	120.64	.539	less than .001
Upper Working	Occupational:			
	Aspirations	63.46	.276	less than .001
	Expectations	122.96	.420	less than .001
	Educational:			
	Aspirations	128.58	.380	less than .001
	Expectations	249.30	.506	less than .001
Lower Working	Occupational:			
	Aspirations	40.33	.317	less than .001
	Expectations	58.88	.413	less than .001
	Educational:			
	Aspirations	78.12	.455	less than .001
	Expectations	98.45	.506	less than .001

[a] Each table was 4 x 3 thus yielding 6 df.

TABLE 42

MEAN DUNCAN SEI STATUS EXPECTATION SCORES FOR Ss BY HOLLINGSHEAD SOCIOECONOMIC STATUS AND PATERNAL AND MATERNAL ACHIEVEMENT PRESSURE

Hollingshead Socioeconomic Status	Source of Pressure	Intensity of Pressure High	Intensity of Pressure Low	SES Means
Upper Middle	Father	62.79	63.83	63.16
	Mother	65.98	57.01	
Lower Middle	Father	56.11	45.97	52.51
	Mother	55.23	46.52	
Upper Working	Father	48.05	39.62	45.06
	Mother	47.89	38.89	
Lower Working	Father	40.99	32.99	38.16
	Mother	41.89	30.02	
Pressure Means	Father	49.23	41.29	46.41
	Mother	49.43	39.83	

Statistical Data: F tests: Main Effects of Paternal Pressure = 31.67
Maternal Pressure = 43.63

DF. = 1, 2681.

Significance: less than .001

Interaction of either pressure level with SES: None

However, caution suggests that before the null hypothesis is rejected a control for family size be invoked and the relationship between parental pressure and career orientations once again be examined to determine if the positive association still persists.

Tables 43, 44, and 45 present, respectively, data on the relationship of parental pressure to the educational, occupational, and social status expectations of the Ss with socioeconomic status and family size controlled. The tables reveal that even with these two controls intensity of parental pressure still remains positively related to adolescent career orientations. In fact, by subtracting for any given socioeconomic status category the percent (or the mean status expectation score) of Ss with a specified expectation level under the condition of low paternal and maternal pressure from the percent under high paternal and maternal pressure with no control for family size and comparing that difference with the difference obtained from the same procedure with the control for family size, it can be seen that the control for family size generally does not reduce by even a small magnitude the original within-SES relationship between parental pressure and adolescent career orientations. Conversely, the same subtraction procedure can be used to ascertain that a control for intensity of parental pressure does not remove the original within-SES negative relationship between family size and adolescent career orientations.

TABLE 43

PERCENT OF RESPONDENTS REPORTING EDUCATIONAL EXPECTATIONS TO FOUR OR MORE YEARS OF COLLEGE, BY HOLLINGSHEAD SOCIOECONOMIC STATUS, FAMILY SIZE, AND PATERNAL AND MATERNAL PRESSURE

Hollingshead Socioeconomic Status Categories	Family Size	Intensity of Paternal Pressure				Averages
		High		Low		
		Maternal		Maternal		
		High	Low	High	Low	
	Small	86.4	60.0	100.0	63.6	82.1
Upper Middle	Medium	85.3	77.8	75.0	75.0	82.4
	Large	70.5	33.3	33.3	50.0	64.4
	Small	70.4	42.1	68.0	23.1	62.5
Lower Middle	Medium	68.2	52.0	60.0	20.0	56.6
	Large	61.0	18.2	33.3	17.6	45.1
	Small	53.6	29.4	26.0	17.8	42.0
Upper Working	Medium	47.3	35.6	20.6	10.5	34.1
	Large	35.7	15.4	24.3	7.4	23.9
	Small	42.3	10.0	27.9	9.8	27.3
Lower Working	Medium	23.4	14.2	25.0	3.5	16.5
	Large	25.4	23.5	7.7	4.9	13.2
Averages		53.6	32.6	30.5	12.7	39.5

TABLE 44

PERCENT OF RESPONDENTS REPORTING OCCUPATIONAL EXPECTATIONS TO MINOR OR MAJOR PROFESSIONAL OR ADMINISTRATIVE POSITIONS, BY HOLLINGSHEAD SOCIOECONOMIC STATUS, FAMILY SIZE, AND PATERNAL AND MATERNAL PRESSURE

Hollingshead Socioeconomic Status Categories	Family Size	Intensity of Paternal Pressure High Maternal High	Intensity of Paternal Pressure High Maternal Low	Intensity of Paternal Pressure Low Maternal High	Intensity of Paternal Pressure Low Maternal Low	Averages
Upper Middle	Small	76.3	60.0	100.0	63.6	77.1
	Medium	82.4	55.6	75.0	75.0	78.0
	Large	76.5	33.3	66.7	50.0	71.1
Lower Middle	Small	65.4	63.2	56.0	38.5	61.0
	Medium	66.7	56.0	40.0	25.7	55.7
	Large	76.3	27.3	46.7	35.3	60.0
Upper Working	Small	54.8	44.1	34.0	25.3	46.1
	Medium	53.7	47.3	32.4	19.5	41.4
	Large	41.3	19.2	35.1	21.3	31.4
Lower Working	Small	43.3	30.0	30.2	11.8	30.4
	Medium	35.1	14.3	25.0	9.4	23.6
	Large	32.8	47.1	30.8	8.6	23.0
Averages		56.2	41.3	36.6	20.5	44.2

TABLE 45

MEAN DUNCAN SOCIAL STATUS EXPECTATION SCORES FOR Ss BY HOLLINGSHEAD SOCIOECONOMIC STATUS AND FAMILY SIZE AND PARENTAL PRESSURE

Hollingshead Socioeconomic Status	Family Size	Intensity of Achievement Pressure: High Source Father	High Source Mother	Low Source Father	Low Source Mother	Means
Upper Middle	Small	61.28	67.23	71.76	60.13	64.99
	Medium	63.28	65.65	60.09	54.51	62.15
	Large	64.50	64.45	56.97	56.10	61.83
Lower Middle	Small	58.38	55.65	47.84	52.43	54.64
	Medium	55.89	54.71	44.15	45.23	51.73
	Large	52.67	55.55	45.97	38.84	50.29
Upper Working	Small	52.14	49.36	41.58	46.28	48.39
	Medium	49.97	48.70	38.45	39.74	45.88
	Large	37.90	44.04	38.38	25.05	38.07
Lower Working	Small	46.44	46.56	37.40	35.98	43.23
	Medium	35.29	39.10	31.75	23.00	34.04
	Large	41.74	38.89	27.75	32.18	36.78
Means		49.23	49.43	41.29	39.83	46.41

Thus, the evidence is adequate to reject the null hypothesis that adolescent career orientations vary independently of or inversely with the intensity of parental achievement pressure.

e. Adolescent career orientation scores vary positively with the career orientations of the peer group.

As Table 46 reveals, the career orientations of the three best same-sex friends of the subject (i.e., the peer group of the S) would seem to function as a rather strong indicator of the career orientation of the subject himself. However, some reflection on this variable quickly leads one to question its importance as a determinant of an individual's career orientation. Simply put, does subject A have the career orientation he has because A associates with friends B, C, and D? Or does A associate with B, C, and D because they have career orientations similar to those of A? As social psychologists have adequately demonstrated, one major determinant of friendship formation is similar interests on the part of those commencing the association. Consequently, on the basis of survey rather than experimental data, it is not possible to state with any degree of certitude whether the peer group variable is a symmetrical or an asymmetrical one. Indeed, the most likely possibility is that there are certain conditions under which the peer group is an asymmetrical determinant of an individual's career

TABLE 46

PERCENT OF RESPONDENTS REPORTING EDUCATIONAL ASPIRATIONS AND EXPECTATIONS TO FOUR OR MORE YEARS OF COLLEGE BY NUMBERS OF PEERS WITH REPORTED COLLEGE ASPIRATIONS AND HOLLINGSHEAD SOCIOECONOMIC STATUS

Educational Dimension	Hollingshead Socioeconomic Status	Number of Peers with College Aspirations 0 out of 3	1 out of 3	2 out of 3	3 out of 3	Averages
Aspirations of Respondent	Upper Middle	52.6	80.7	79.5	97.2	87.0
	Lower Middle	44.5	74.7	77.2	90.6	77.2
	Upper Working	27.1	49.5	71.8	85.7	59.9
	Lower Working	19.0	40.6	62.2	82.1	43.7
	Averages	27.0	52.8	71.5	88.3	61.6
Expectations of Respondent	Upper Middle	26.3	73.0	70.4	89.1	77.0
	Lower Middle	17.5	44.3	55.8	76.8	56.0
	Upper Working	9.1	25.2	42.8	59.1	35.1
	Lower Working	6.1	19.2	23.7	45.2	19.4
	Averages	9.6	28.9	43.6	66.8	38.7

orientations, while, under other conditions the relationship is one primarily of symmetry.

Consequently, Table 46 is presented primarily for illustrative purposes. Since only data on the aspirational dimension of the peers' educational orientations were secured, the peer group was classified on the basis of the number of peers out of three with aspirations to four or more years of college.

As per the hypothesis, the percent of Ss reporting college aspirations and expectations varies positively with the proportion of peers who have high educational orientations. Because the data are displayed for descriptive purposes only and since the magnitude of the relationships is such as to be obviously significant, no statistical tests were performed. On the basis of an inspection of the data, the evidence would seem adequate to reject the null hypothesis, at least for educational orientations, that adolescent career orientation scores vary independently of or negatively with the career orientations of the peer group.

A Multivariate Summary of the Determinants of Adolescent Career Orientations

Preface and Cautions

The preceding analyses, while multivariate in design, have been primarily of a tabular - descriptive nature. A more informative type of analysis would be one which would provide some estimate of the variance accounted for by each variable and which would permit the development of an equation to predict the approximate career level which any one individual expects to achieve. Such a type of analysis is available in the form of multiple correlation and regression.

As noted in the last section of the chapter on methods and procedures, this writer is fully aware of the limitations of the use of this technique with survey data of the type used in this research. However, since the writer knows of no other statistical technique which accomplishes as efficiently as multiple correlation and regression the goals of variance estimation and prediction, the decision was made to proceed with the analysis once the proper caveats had been clearly stated.

In addition to the caution stated above, one other caution is in order. That caution concerns the procedure of coping with missing data.

It has been previously stated that for most of the items reported herein the No Response rate was seldom in excess of 10 percent. There are two important exceptions to this: (1) the occupational expectation of the S for himself, (2) the occupational expectation of the parents for the S. For each of these two cases, the No Response rate was approximately 19 percent.

A No Response rate of 10 percent per item in a bivariate run may be of relatively little consequence.

However, in a multivariate run, with perhaps five to nine variables, a No Response rate of 10 percent per item can and often does compound itself into an attrition rate far in excess of 10 percent, unless the No Responses for each item happen to be confined to the same individuals.

In correlation analysis, there are essentially four alternatives for coping with this problem of missing data:

1. Do not run the correlation at all.
2. Run the correlation and include those cases with missing data.
3. Run the correlation and exclude only those cases with No Response to:
    a. The dependent variable
    b. The independent and dependent variables
4. Assign random values to those cases with missing data and run the correlation with all cases.

The most adequate solution is alternative four. However, this writer was not aware of this alternative until the final days of data analysis and the lack of sufficient time thus unfortunately and disappointingly precluded its use. However, within the ensuing year, the writer plans to employ this alternative and then report the revised correlation and regression values.

Alternative one is the least adequate solution since it is analogous to "throwing the baby out with the bathwater."

The second alternative, while somewhat better than number one, often results in a gross deflation of the correlation coefficients.

Consequently, alternative three is the one which the writer selected and upon which the following values are based.

For most of the data reported below, two sets of numerical values are provided: (1) Those based on correlation runs in which only those cases with missing data on the dependent variable were excluded. The N for these runs is 2300. (2) Those based on correlation runs in which those cases with missing data on both the dependent and independent variables were excluded. The N for these runs is 1439. The reader is cautioned that any generalizations from this restricted sample of 1439 are appropriate only for those Ss who, in a subsequent survey, respond to all of the items incorporated in the correlation and regression analyses reported below.

Table 47 presents the means and standard deviations for many of the variables included in the runs reported below.

From an inspection of the table, some idea may be gained as to the effect of a reduction in sample size on the numerical values of the variables. One discernible effect is that the reduction of the sample size has diminished the proportion of respondents from the lower socioeconomic status categories. Thus, whereas the original Duncan SEI mean was 37.86 for N = 2853, reducing the sample size to 2300 increased that mean to 38.70, and reducing the sample size to 1439 increased that mean to

TABLE 47

MEANS AND STANDARD DEVIATIONS OF SELECTED VARIABLES USED IN CORRELATION AND REGRESSION ANALYSES FOR THREE SAMPLE SIZES

Name of Variable	Sample Sizes N = 2853	 N = 2300	 N = 1439
Duncan SEI of the Family			
Mean	37.86	38.70	39.27
Std. Dev.	21.63	21.56	21.62
Family Size			
Mean	3.34	3.34	3.32
Std. Dev.	1.77	1.75	1.75
Paternal Pressure			
Mean	2.73	2.85	2.93
Std. Dev.	1.10	1.01	.97
Maternal Pressure			
Mean	2.87	2.96	3.04
Std. Dev.	1.00	.92	.88
Duncan SEI Exp. of S			
Mean	45.21	54.37	55.82
Std. Dev.	30.80	25.69	25.52
Duncan Expectation of Parents for the S			
Mean	37.24	42.42	57.63
Std. Dev.	34.29	33.71	25.57

NOTE: N = 2853 is original sample size. N = 2300 is sample size reduced by excluding those cases not responding to the dependent variable of the social status expectation of the S. N = 1439 is sample size reduced by excluding those cases not responding to the dependent and independent variables (a total of nine variables).

39.27. Each of the two means from the reduced sample sizes are significantly different from the original mean at or beyond the .02 level, with a nondirectional t test. This effect is not at all surprising since the non-response rate in almost any type of survey generally has been found to vary inversely with socioeconomic status. A second discernible effect is that the exclusion of the non-responses has increased the numerical values for the social status, occupational, and educational expectations of the Ss and of the parents for the Ss. However, it cannot be stated categorically that this effect is due solely to the reduction of the proportion of lower social status respondents. Such an assertion cannot be made for the simple reason that the mean career orientation values for the sample size of 2853 are calculated by adding the numerical values of any specific career orientation and then dividing that sum by the sample size. Included in the numerator of that calculation, however, are the zero scores of the non-responses, and these zero scores will produce a deflated mean. When these non-responses are excluded and the same mean orientation score is recalculated, the zero scores are no longer included in the numerator and consequently the mean value will no longer be deflated.

Finally, all correlations reported below have been calculated for only one dimension of a career orientation, a decision necessitated by the relatively high cost of computer time for correlation analysis. The dimension selected is the expectational, primarily because in the mind of the writer there is greater pragmatic value in being able to predict what an individual may actually do than what he may like to do.

Data and Values for N = 2300.

Criterion Variable: Duncan SEI
Status Expectation of the *S*

The independent or predictor variables for this correlation are:

X_1: The Duncan SEI score of the family

X_2: Family Size

X_3: The summated scores of Paternal Pressure plus Maternal Pressure

X_4: The Duncan SEI status expectation of the parents for the *S*

The partial correlation coefficients for each predictor variable are presented in Table 48. Each partial represents the correlation of the criterion variable with the predictor variable with the effects of all other predictor variables which have been included in the equation removed.

TABLE 48

PARTIAL CORRELATION COEFFICIENTS FOR PREDICTION TO DUNCAN SEI STATUS EXPECTATION OF THE S. N = 2300

Variable	Partial r	Variance Accounted for	Significance Level
X_1	+ 0.261	0.068	beyond .01
X_2	- 0.087	0.007	between .05 and .01
X_3	+ 0.192	0.036	beyond .01
X_4	+ 0.488	0.238	beyond .01

The multiple correlation coefficient representing the degree of association of all the above stated predictor variables with the criterion variable is: $R_{0 \cdot 1,2,3,4} = .630$. The coefficient of multiple determination which indicates the amount of variance explained is: $R^2_{0 \cdot 1,2,3,4} = .397$.

The regression equation for estimating the Duncan status expectation score of the respondent is:

$$Y = 18.937 + .260_{X_1} + -1.020_{X_2} + 2.413_{X_3} + .348_{X_4}$$

An examination of the partials in the above table reveals that the variable accounting for the largest proportion of the variance is X_4, the Duncan SEI status expectation which the S reports his parents expect him to achieve. The bivariate correlation of X_4 with X_0, the Duncan status expectation of the S himself, is 0.550. A bivariate correlation of this magnitude based on individual data for these two variables suggests the possibility of a "halo" effect. That is, the S assumes that the status level he expects to achieve is also that which his parents expect him to achieve. If this is actually true, then parental status expectation cannot be considered an asymmetrical determinant of the S's status expectation since the halo effect suggests that the status expectation of the S may be the determinant of the status expectation which the S imputes to his parents. Without separate data from the parents themselves, such a possibility cannot be excluded. Of course, it is plausible to argue that if the S desires to fulfill his parents' role expectation, then what he thinks his parents expect of him may in point of fact become an actual determinant of what he himself actually expects to do.

Nevertheless, the canons of research would strongly suggest that this variable be removed from the model and the correlation run again. Table 49 presents the partial coefficients for X_1, X_2, and X_3 for the correlation without the variable of parental status expectation.

TABLE 49

PARTIAL CORRELATION COEFFICIENTS FOR PREDICTION TO DUNCAN SEI STATUS EXPECTATION OF THE S. N = 2300

Variable	Partial r	Variable Accounted for	Significance Level
X_1	+ 0.288	0.083	beyond .01
X_2	- 0.111	0.012	beyond .01
X_3	+ 0.277	0.077	beyond .01

The multiple correlation coefficient, $R_{0\cdot 1,2,3}$ = 0.456. The coefficient of multiple determination, $R^2_{0\cdot 1,2,3}$ = 0.208.

The regression equation is:

$$Y = 23.537 + .329_{X_1} + -1.477_{X_2} + 3.965_{X_3}$$

Data and Values for N = 1439

Criterion Variable: Duncan SEI
Status Expectation of the S

The independent or predictor variables for this correlation are:

X_1: The Duncan SEI score of the family

X_2: Family Size

X_3: Paternal Pressure

X_4: Maternal Pressure

X_5: The Duncan SEI status expectation of the parents for the S

The partial correlation coefficients for each predictor variable are presented in Table 50.

TABLE 50

PARTIAL CORRELATION COEFFICIENTS FOR PREDICTION TO DUNCAN SEI STATUS EXPECTATION OF THE S. N = 1439

Variable	Partial r	Variance Accounted for	Significance Level
X_1	+ 0.163	0.027	beyond .01
X_2	- 0.060	0.003	not significant
X_3	+ 0.066	0.004	not significant
X_4	+ 0.042	0.002	not significant
X_5	+ 0.766	0.587	beyond .01

The multiple correlation coefficient is: $R_{0\cdot 1,2,3,4,5} = .832$. The coefficient of multiple determination which provides an estimate of the amount of explained variance is: $R^2_{0\cdot 1,2,3,4,5} = .693$.

The regression equation for estimating the Duncan status expectation score of the respondent is:

$$Y = 3.05 + .116_{X_1} + -.495_{X_2} + 1.298_{X_3} + .883_{X_4} + .752_{X_5}$$

In accordance with the procedure outlined for sample size 2300, a correlation was run for sample size N = 1439 which did not include the status expectation of the parents as a predictor variable. Table 51 presents the partial coefficients for that run.

TABLE 51

PARTIAL CORRELATION COEFFICIENTS FOR PREDICTION TO DUNCAN SEI STATUS EXPECTATION OF THE S. N = 1439

Variable	Partial r	Variance Accounted for	Significance Level
X_1	+ 0.304	0.092	beyond .01
X_2	- 0.152	0.023	beyond .01
X_3	+ 0.155	0.024	beyond .01
X_4	+ 0.136	0.018	beyond .01

The multiple correlation coefficient is $R_{0\cdot1,2,3,4} = .506$. The coefficient of multiple determination which provides an estimate of the amount of explained variance is: $R^2_{0\cdot1,2,3,4} = .256$.

The regression equation for estimating the Duncan status expectation score of the respondent is:

$$Y = 21.478 + .337_{X_1} + -1.961_{X_2} + 4.754_{X_3} + 4.504_{X_4}$$

An Analysis of the Consequences of Chronic Economic Distress on Adolescent Career Orientations

It is the judgment of this writer that the importance of the data presented in this section lies not so much in the presence of any small differences in adolescent career orientations between economically distressed and economically prosperous urban areas, but rather in the absence of any large differences in adolescent career orientations between the two types of economic areas.

Specifically, this cross sectional analysis has revealed no adverse consequences of marked magnitude of chronic urban economic distress on the educational and occupational career orientations of the youth included in the survey sample.

The Relationship of the Socioeconomic Status Composition of the Two Urban Areas to the Career Orientations of Youth

In Table 3 of Chapter IV data were presented indicating that:

1. Of the males who had graduated from high school in June of 1964 from the 16 secondary schools cooperating in the survey, 30.8 percent from the distressed cities and 39.7 percent from the prosperous cities were actually enrolled in a four year college in the fall of 1964. This is a difference of 8.9 percentage points, a difference statistically significant beyond the .001 level with a two-tailed test of differences between proportions.
2. Of the males who were surveyed as sophomores in 1963 and who have since graduated in June of 1965, 38.2 percent from the distressed cities and 40.0 percent from the prosperous cities indicated that they actually expected to achieve four or more years of college education. This difference of 1.8 percentage points, while not statistically significant, is nevertheless in the same direction as the difference of 8.9 points reported for the behavioral data.

Initially, these cross-sectional career orientation differences might be attributed to differences in the economic conditions of the two sets of urban areas.

However, to state without further analysis that these career orientation differences are a function of economic conditions as such would be to overlook a very important generalization amply documented in the preceding sections of this chapter; namely, that adolescent career orientations are a positive function of socioeconomic status. Thus, if the two urban areas differ in their socioeconomic status compositions, one would logically expect that they should also differ in the career orientations of their youth.

Even on the basis of the most cursory knowledge of the two types of urban areas, a generally higher social status level would be expected in the prosperous than in the distressed cities. This expectation stems from knowledge that the prosperous cities have a greater proportion of white-collar clerical and light industrial employment than do the distressed cities while the distressed cities have a greater proportion of blue collar and heavy industrial and extractive industrial employment than do the prosperous cities.

Table 52 presents the social status distribution of the two sets of cities on the basis of the 1960 U.S. Census, Edwards classification system. This table confirms the belief that the percent of professional--managerial, and white collar workers in the prosperous cities exceeds that in the distressed, and that the percent of blue

TABLE 52

THE SOCIOECONOMIC STATUS COMPOSITION OF THE ECONOMICALLY DISTRESSED AND ECONOMICALLY PROSPEROUS SETS OF CITIES 1960 U.S. CENSUS, EDWARDS CLASSIFICATION

Type of Occupation	Percent Per Occupational Category Type of Economic Area Distressed	 Prosperous	 Averages
White Collar:			
Professional	9.9	11.4	10.8
Managerial, Official, Proprietor	6.4	6.6	6.5
Clerical and Sales	23.4	27.9	25.9
Sub Total	39.7	45.9	43.2
Service and Hhld.			
Service	10.0	10.9	10.6
Private Household	1.6	2.2	1.9
Sub Total	11.6	13.1	12.5
Blue Collar			
Craftsmen *et al*.	16.8	14.5	15.5
Operatives	24.1	19.7	21.6
Laborers	7.9	6.8	7.2
Sub Total	48.8	41.0	44.3
Grand Totals	100.1	100.0	100.0

collar workers in the distressed cities exceeds that in the prosperous.

A second perspective on the social status composition of the two sets of urban areas is offered in Table 53. This table presents the Hollingshead SES distribution of the families of the males surveyed in 1963. This distribution once again shows that the proportion of upper and lower middle class families in the prosperous exceeds (by 10.6 percentage points) the comparable social classes in the distressed communities.

On the basis of the reasoning that career orientations are related to socioeconomic status and that the socioeconomic status compositions of the two urban areas differ, two tentative hypotheses may be suggested:

1. If a control for social status is invoked then the initial marginal differences between the distressed versus the prosperous cities in the proportion of males actually attending or expecting to attend four or more years of college should either be reduced in magnitude or should disappear entirely. [Since socioeconomic status data are available only for those surveyed in 1963 and graduated in 1965, all analyses must be confined only to those who stated that they *expected* to enroll in college. No analysis can be performed for those 1964 graduates who either did or did not attend college.]

2. If the *percent* of males expecting to attend college from each of the four social status categories in the prosperous cities is multiplied by the *number* of males in each of the four social status categories in the depressed cities and the four numerical products thus obtained are summed and expressed as a percent of the total sample size from the distressed cities, then the

TABLE 53

THE SOCIOECONOMIC STATUS COMPOSITION OF THE ECONOMICALLY DISTRESSED AND ECONOMICALLY PROSPEROUS SETS OF CITIES THE HOLLINGSHEAD SES SYSTEM

Hollingshead Socioeconomic Status Categories	Percent Per SES Category Type of Economic Area Distressed	 Prosperous	 Averages
Upper Middle	5.3	10.6	7.7
Lower Middle	17.7	23.0	20.1
Upper Working	49.9	46.1	48.2
Lower Working	26.7	19.8	23.6
No Response	0.4	0.5	0.5
Totals	100.0	100.0	100.0

> initial marginal differences in the percent of males expecting to four or more years of college should reappear. [NOTE: This hypothesis makes the generous assumption that there are absolutely no within social status category differences between the depressed and prosperous cities in the percent of males per category who expect to attend four or more years of college.]

Table 54 presents the data for the first hypothesis. This table also includes data on the educational aspirations and on the occupational aspirations and expectations of the Ss.

An examination of Table 54 reveals that the control for social status does not remove in any simple fashion the original difference between the depressed and the prosperous cities in the percent of males expecting to achieve a college education. Instead, the control for social status tentatively suggests that the economic conditions of the community interacts with social status in regard to the effect of economic distress (or economic prosperity) on adolescent college expectations. Thus, the data indicate that:

1. In the two working categories, the percent of males reporting a college expectation is greater (significance less than .01) in the distressed than in the prosperous cities.
2. In the two middle categories, the percent of males reporting a college expectation is less (significance less than .01) in the distressed than in the prosperous cities.

The data for occupational expectations reveal a similar pattern for the two working categories, i.e.,

TABLE 54

PERCENT OF RESPONDENTS REPORTING OCCUPATIONAL ASPIRATIONS AND EXPECTATIONS TO MINOR OR MAJOR PROFESSIONAL OR ADMINISTRATIVE POSITIONS, EDUCATIONAL ASPIRATIONS AND EXPECTATIONS TO FOUR OR MORE YEARS OF COLLEGE, BY HOLLINGSHEAD SOCIOECONOMIC STATUS AND TYPE OF ECONOMIC AREA

Hollingshead Socioeconomic Status	Type of Area	Occupational Dimension				Educational Dimension			
		Asp.	D-P	Exp.	D-P	Asp.	D-P	Exp.	D-P
Upper Middle	Dep.	90.5	+ 2.3	77.4	+ 2.4	89.3	+ 1.8	76.2	- 3.2
	Prosp.	88.2		75.0		87.5		79.4	
Lower Middle	Dep.	76.8	- 0.1	58.2	- 1.1	75.7	- 4.3	54.3	- 5.7
	Prosp.	76.9		59.3		80.0		60.0	
Upper Working	Dep.	65.3	+ 1.1	43.5	+ 5.7	60.5	+ 2.2	37.3	+ 5.5
	Prosp.	64.2		37.8		58.3		31.8	
Lower Working	Dep.	53.9	+11.1	27.2	+ 4.0	45.4	+ 6.2	21.7	+ 6.5
	Prosp.	42.8		23.2		39.2		15.2	
Averages	Dep.	65.6	+00.1	43.6	-00.3	60.7	- 2.0	38.2	- 1.9
	Prosp.	65.5		43.9		62.7		40.1	

the percent of males expecting to achieve high status positions is greater in the distressed than in the prosperous cities. For the two middle categories, however, the data for occupational orientations are not fully consistent with those for educational orientations.

Consequently, the relatively complex pattern displayed by these data does not permit a rejection of the null form of the first hypothesis; namely, that if social status is controlled the initial differences between the distressed and prosperous cities in the percent of males with college expectations will increase in magnitude. The interaction of economic distress with social status is considered more fully below.

Table 55 presents the data for the testing of the second tentative hypothesis. The "Totals" row at the base of the table indicates that if the same percent of males per social status category expected to attend college in the distressed as in the prosperous cities, the different socioeconomic composition of the two sets of cities would still result in an average of only 34.9 percent of all males in the distressed cities who would expect to go to college as opposed to 40.1 percent in the prosperous cities.

These cross-sectional data thus suggest that much, if not all, of the differences between the two sets of cities in adolescent expectations to college is a function

TABLE 55

NUMBER AND PERCENT OF MALE SUBJECTS FROM THE DEPRESSED CITIES FOR EACH OF THE FOUR HOLLINGSHEAD SOCIOECONOMIC CATEGORIES AND FOR THE ECONOMIC AREA AS A WHOLE WHO WOULD EXPECT TO ENROLL IN A FOUR YEAR COLLEGE IF THE RATES PER HOLLINGSHEAD CATEGORY FOR THE PROSPEROUS CITIES WERE APPLIED

Hollingshead Socioeconomic Status Category	Prosperous Cities			Distressed Cities		
	Total Number of Ss per Category	Expecting to College		Total Number of Ss per Category	Expecting to College	
		%	n		% [from Prosperous]	n
Upper Middle	136	79.4	108	84	79.4	67
Lower Middle	295	60.0	177	280	60.0	168
Upper Working	590	31.8	188	790	31.8	251
Lower Working	254	15.2	39	423	15.2	64
Totals	1275	40.1	512	1577	34.9	550

of the fact that the percent of male adolescents who report college expectations is positively related to socioeconomic status and that the overall socioeconomic status level of the prosperous cities is higher than that for the distressed cities.

The data thus indicate that many, if not all, of the differences between the two sets of cities in the proportion of males either actually attending or expecting to attend college is a function of the different social status compositions of the two sets of cities. However, there are no data ready to be reported at this time which would indicate what proportion, if any, of the differences in the social status compositions of the two sets of cities is a function of economic distress.

It is highly plausible and even highly probable that some of the social status composition differences between the two sets of cities is attributable to economic distress itself. There are a number of reasons why economic distress could be expected to adversely affect the socioeconomic status level of a community:

1. Adverse economic conditions often lead the affected industries to engage in retrenchment policies. Such policies may have at least two effects detrimental to the social status level of the community:
    a. Large scale lay offs (often permanent) of the labor force and reductions in job and salary levels of segments of the labor force which have not been laid off.

b. Restriction of opportunities for upward social mobility via job advancement and salary increases.

2. As a community undergoes a period of prolonged economic distress, some individuals with moderate to high level occupations emigrate in order to retain or improve their present levels of living, thereby reducing the proportion of the remaining population which is middle class.

3. As unemployment rises in communities experiencing economic distress, a progressively larger pool of available labor, much of it skilled, begins to appear. Many of the individuals in this pool are often willing to accept jobs requiring much less skill and paying much lower wages than did their former jobs. Such a pool of labor tends to attract concerns into the area which require primarily unskilled help and which pay only the lowest wages. This situation then promotes a tendency for an already lowered social status structure to become solidified.

Thus, if, as conjectured, economic distress does tend to reduce the overall socioeconomic status level of a community, then the conclusions reported above that the differences between the two sets of cities in adolescent career orientations is primarily a result of the differing social status structure must not be interpreted as indicating that economic distress does not adversely affect adolescent career orientations. For, if economic distress adversely affects the overall social status level and if the overall social status level is related to adolescent career orientations, then economic distress does indeed adversely affect adolescent career orientations. Unfortunately, what is necessary to decide this matter unequivocally is a study of a longitudinal nature which would have spanned the past three decades. The present study is cross-sectional and thus is inadequate to the task as described.

Returning to Table 54, it will be remembered that when the two sets of cities were compared in terms of the percent of S̲s reporting college expectations on a social status category by social status category basis, the percent of Working class S̲s reporting a college expectation was greater for the distressed than for the prosperous cities, while the percent of Middle class S̲s reporting a college expectation was less for the distressed than for the prosperous cities.

Since both between-sets-of-cities differences are statistically significant beyond the .01 level, it may be assumed that the differences are due to some condition other than chance.

In attempting to discover what this condition (or conditions) would be, a model of "rational" human behavior was posited as follows:

1. There have been federal, state, and local efforts, communicated primarily by the mass media, which have stressed the adverse consequences of inadequate education on economic security and job advancement.
2. The adverse consequences of economic distress on economic security and job advancement are experienced more severely by the working than by the middle classes.
3. Those most severely affected by economic distress may well be those most receptive to such communications.

4. If assumptions two and three are plausible, then it would follow that the working class parents in the distressed cities would be more interested than their counterparts in the prosperous cities in having their sons receive an adequate education in order that they might be spared some of the hardships of their parents.

5. Therefore:
    a. A greater proportion of working class Ss from the distressed cities should report that their parents expect them to attend college than should Ss from the prosperous cities.
    b. A greater proportion of working class Ss from the depressed cities should report high parental achievement pressure than should their counterparts from the prosperous cities.

It is obvious that while this model may be able to account for the between economic area career orientation differences of the working classes, the model is not able to account for the between economic area career orientation differences of the middle classes. Regretably, this writer cannot, at present, provide even a tentative explanation for the between area differences in middle class career orientations. The consequences of this inability may be lessened somewhat by the fact that while the data consistently reveal higher working class orientations in the distressed than in the prosperous areas, the data do not consistently reveal lower middle class orientations in the distressed than in the prosperous areas.

Tables 56 and 57 present data, respectively, on the educational and the occupational career orientations of the parents for their sons by type of economic area. Both tables reveal that the percent of working class Ss reporting a "high" parental educational or occupational career orientation is greater in the distressed than in the prosperous cities.

Tables 58 and 59 present data for the percent of Ss reporting specified intensities of parental achievement pressure for the two sets of cities. Table 58, which classifies the achievement pressure variable by the two levels of maternal pressure within each of the two levels of paternal pressure, as expected, indicates that the percent of working class Ss reporting high paternal and high maternal pressure in the distressed cities exceeds that for the prosperous cities. However, the table also reveals the same pattern existing in the two middle classes, a finding which, at present, is unexplainable. Table 59 presents, by economic area, the percent of Ss reporting high maternal pressure, and high paternal pressure. Again, as expected, the data reveal that a greater proportion of working class Ss from the distressed cities report high paternal and high maternal achievement pressure than do their counterparts from the prosperous cities. However, as in Table 58, these differences are not confined to the working classes, but also appear in the two middle classes.

TABLE 56

PERCENT OF RESPONDENTS REPORTING PATERNAL AND MATERNAL EDUCATIONAL ASPIRATIONS AND EXPECTATIONS TO FOUR OR MORE YEARS OF COLLEGE, BY HOLLINGSHEAD SOCIOECONOMIC STATUS AND TYPE OF ECONOMIC AREA

Hollingshead Socioeconomic Status	Type of Area	Paternal				Maternal			
		Asp.	D-P	Exp.	D-P	Asp.	D-P	Exp.	D-P
Upper Middle	Depressed	80.9	- 5.9	70.2	- 0.3	82.1	- 5.4	71.4	- 0.1
	Prosperous	86.8		69.9		87.5		71.3	
Lower Middle	Depressed	72.1	- 4.8	45.4	-10.5	70.0	- 7.3	48.6	- 8.0
	Prosperous	76.9		55.9		77.3		56.6	
Upper Working	Depressed	57.2	+ 0.8	33.6	+ 4.5	58.9	+ 3.0	34.0	+ 3.9
	Prosperous	56.4		29.1		55.9		30.1	
Lower Working	Depressed	45.6	+12.8	18.7	+ 7.9	48.0	+12.4	19.4	+ 6.2
	Prosperous	32.8		10.8		35.6		13.2	
Averages	Depressed	58.0	- 1.8	33.7	- 2.4	59.2	- 1.0	34.7	- 2.6
	Prosperous	59.8		36.1		60.2		37.3	

TABLE 57

PERCENT OF RESPONDENTS REPORTING PARENTAL OCCUPATIONAL ASPIRATIONS AND EXPECTATIONS FOR Ss TO MINOR OR MAJOR PROFESSIONAL OR ADMINISTRATIVE POSITIONS BY HOLLINGSHEAD SOCIOECONOMIC STATUS AND TYPE OF ECONOMIC AREA

Hollingshead Socioeconomic Status	Type of Area	Dimension of Parental Occupational Orientation			
		Aspiration	D-P	Expectation	D-P
Upper Middle	Depressed	78.6	+11.0	70.2	+15.8
	Prosperous	67.6		54.4	
Lower Middle	Depressed	62.5	- 1.2	47.1	- 1.7
	Prosperous	63.7		48.8	
Upper Working	Depressed	55.6	+ 5.6	37.7	+ 5.6
	Prosperous	50.0		32.1	
Lower Working	Depressed	41.1	+ 9.5	23.5	+ 3.5
	Prosperous	31.6		20.0	
Averages	Depressed	54.2	+ 2.7	37.3	+ 1.3
	Prosperous	51.5		36.0	

4

TABLE 58

PERCENT OF RESPONDENTS REPORTING SPECIFIED LEVELS OF PATERNAL AND MATERNAL ACHIEVEMENT PRESSURE BY HOLLINGSHEAD SOCIOECONOMIC STATUS AND TYPE OF ECONOMIC AREA

Hollingshead Socioeconomic Status	Type of Area	Paternal Pressure								Totals
		High				Low				
		Maternal Pressure				Maternal Pressure				
		High	D-P	Low	D-P	High	D-P	Low	D-P	
Upper Middle	Dep.	83.8	+13.7	5.0	-04.7	5.0	-01.7	6.3	-07.1	100.1
	Prosp.	70.1		9.7		6.7		13.4		99.9
Lower Middle	Dep.	69.0	+05.3	10.9	+02.1	8.0	-03.6	12.0	-03.8	99.9
	Prosp.	63.7		8.8		11.6		15.8		99.9
Upper Working	Dep.	58.6	+05.5	7.9	00.0	10.7	-02.3	22.8	-03.3	100.0
	Prosp.	53.1		7.9		13.0		26.1		
Lower Working	Dep.	46.5	+11.6	5.6	-02.6	15.7	-02.8	32.3	-06.1	100.1
	Prosp.	34.9		8.2		18.5		38.4		100.0
Averages	Dep.	58.6	+04.6	7.7	-0.07	11.2	-01.8	22.5	-02.2	100.0
	Prosp.	54.0		8.4		13.0		24.7		100.0

TABLE 59

PERCENT OF RESPONDENTS REPORTING HIGH PATERNAL AND HIGH MATERNAL ACHIEVEMENT PRESSURE, BY HOLLINGSHEAD SOCIOECONOMIC STATUS AND TYPE OF ECONOMIC AREA

Hollingshead Socioeconomic Status	High Maternal Dep.	Prosp.	D-P	High Paternal Dep.	Prosp.	D-P
Upper Middle	88.8	76.8	+12.0	88.8	79.8	+ 9.0
Lower Middle	77.0	75.3	+ 1.7	79.9	72.5	+ 7.4
Upper Working	69.3	66.1	+ 3.2	66.5	61.0	+ 5.5
Lower Working	62.2	53.4	+ 8.8	52.1	43.1	+ 9.0
Averages	69.8	67.0	+ 2.8	66.3	62.4	+ 3.9

Summary

A brief summary of all of the findings reported in this chapter is provided in the beginning of the following chapter and serves as a preface to the interpretation of the research findings. A complete summary of the findings reported in this chapter appears in the last chapter (Summary Chapter) of the study.

CHAPTER VI

INTERPRETATION OF FINDINGS

Summary of Findings to be Interpreted

On the basis of the statistical tests performed on the data and reported in the preceding chapter, the research generalizations cited in the summary which appears below are considered to have been established as a result of the rejection of their respective null hypotheses.

Socioeconomic Status

The career orientation scores of individual parents and adolescents and the proportion of parents and adolescents with high career orientation scores vary positively with socioeconomic status.

Education of Parents

With socioeconomic status collapsed: The proportion of parents and adolescents with high career orientation scores vary positively with the educational attainment of each parent.

Within each social status category: The proportion of parents and adolescents with high career orientation scores vary positively with the educational attainment of each parent.

Parental Educational Discrepancies

Within each social status category: (1) The proportion of parents and adolescents with high career orientation scores is higher under the condition of marked maternal educational superiority than under the condition of marked paternal educational superiority or under the conditions of parental educational equality: M = F = 11 years or less, M = F = 12 years. (2) The proportion of parents and adolescents with high career orientation scores is greater under the condition of marked maternal educational superiority than for the given social status category as a whole.

Family Size

With socioeconomic status collapsed: The career orientation scores of individual parents and adolescents and the proportion of parents and adolescents with high career orientation scores varies inversely with family size.

Within each social status category: (1) The proportion of parents and adolescents with high career orientation scores varies inversely with family size in the Lower and Upper Working status categories. (2) While the proportion of adolescents with high career orientation scores varies independently of family size in both the Upper and Lower Middle status categories, the proportion of parents with high career orientation scores varies independently of family size in the Upper Middle but inversely with family size in the Lower Middle social status categories.

Ordinal Position

With socioeconomic status collapsed: The proportion of adolescents with high career orientation scores does not appear to vary independently of ordinal position.

Within each combination of social status and family size: The proportion of adolescents with high career orientation scores does not appear to vary independently of ordinal position.

Parental Achievement Pressure

With socioeconomic status collapsed: The parental pressure scores of individual Ss and the proportion of Ss reporting high parental pressure vary positively with socioeconomic status and inversely with family size.

Within each social status category, the inverse relationship of family size and parental pressure still remains.

With socioeconomic status collapsed: The proportion of Ss reporting high career orientation scores varies positively with intensity of parental pressure.

Within each social status category: The proportion of Ss reporting high career orientation scores varies positively with parental pressure.

Within each combination of social status and family size, the proportion of Ss reporting high career orientation scores varies positively with parental pressure.

Career Orientations of the Peer Group

With socioeconomic status collapsed: the proportion of Ss with high career orientation scores varies positively with the proportion of peers expressing high educational aspirations.

Within each social status category: The proportion of Ss with high career orientation scores varies positively with the proportion of peers expressing high educational aspirations.

Consequences of Economic Distress

If it is assumed that the social status composition of a community is relatively independent of economic distress: Much of the difference between distressed and prosperous cities in the proportion of males actually attending or expecting to attend college would seem to be attributable to the different social status compositions of the two sets of cities.

If it is assumed that the social status composition of the distressed cities has been adversely affected by economic distress: Much of the difference between the two sets of cities in the proportion of males actually attending or expecting to attend college would seem to be attributable to the adverse effect of chronic economic distress upon the social status composition of the distressed communities.

Regardless of which assumption is invoked: (1) The proportion of Lower and Upper Working Category adolescents with high career orientation scores in the distressed cities is significantly greater than the proportion from the prosperous cities. (2) The proportion of Lower and Upper Category adolescents reporting high parental career orientation scores and high parental pressure is greater in the distressed cities than in the prosperous cities.

Interpretation

The Determinants of Parental and Adolescent Career Orientations

In the judgment of this writer, the findings reported in this study can best be interpreted within the conceptual and theoretical framework of social stratification. The stratification system characteristic specifically of the six cities surveyed for this research and generally of American society is the "open class system." This term refers to a stratification system in which:

1. The boundaries which define the lower and upper limits of each stratum are relatively permeable and thus permit individual vertical movement among the strata.
2. There exists no articulated religious (as in the caste system) or legal (as in the estate system) ideological justification for the inequalities which result from the process of stratification. Indeed, one distinguishing attribute of the open class system is that it often lacks an ideological form of justification for its inequalities and that the system is frequently predicated upon the assumption that all men are born equal and free. (Bergel, 1962)
3. As a derivative of the egalitarian creed that all men are born equal and free there is often the belief that the stratification structure is open and that the positions therein are available to all, i.e., that the positions at the top are open to those who have the talents, aptitudes, and whatever else is required to achieve them. This creed is, in short, the substance of the American dream.

Were the egalitarian creed which exists cognitively also to exist behaviorally in the open class system, there would be no inter-strata differences either in the proportion of adolescents *intending** or in the proportion of adults *achieving* vertical social mobility. However, as this study and many others have amply documented, the proportion of adolescents expressing upward mobility intentions, both educationally and occupationally, is significantly greater if the family of orientation is from the Upper rather than the Lower Middle status category, from the Lower Middle rather than from the Upper Working category, and from the Upper rather than from the Lower Working status category. Nevertheless, the same data have also revealed that there are certain conditions under which the proportion of Lower or Upper Working class *S*s with high career goals exceeds that for the particular status category as a whole and often approximates the proportion of Lower or Upper Middle class adolescents with similar high goals. These conditions involve certain levels of the variables of family size, parental education and parental educational discrepancies, intensity of parental pressure, and the career orientations of the age-mates of the adolescent.

Therefore, the two major questions which this discussion shall seek to answer in an interpretative fashion are:

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*The term "intended" mobility is used as inclusive of both the idealistic and the realistic dimensions of a career orientation. It will be remembered from the preceding chapter that both dimensions vary positively with socioeconomic status, although the degree of relationship is greater for expectations than for aspirations.

1. How does the open class system function to produce the discrepancy between the belief in the equality of intended mobility opportunity and the behavior of inequality of intended mobility opportunity?
2. How do the variables of family size, parental education and parental educational discrepancies, intensity of parental achievement pressure, and age-mate career orientations function as sources of intended upward mobility among adolescents, particularly among adolescents of the lower social status categories?

The Open Class System and the Discrepancy between the Cognitive and the Behavioral Elements of the Egalitarian Creed

It is assumed by the author that a major proportion of the variation in human attitudes and behavior is a function of the variations in a complex series of socio-cultural environmental conditions. Thus, it can be argued plausibly that if the different social strata are characterized by different socio-cultural environments, then the different social strata produce correspondingly different attitudes and behaviors in those socialized therein.

Therefore, if it can be shown that the socio-cultural environments of the lower status categories are less supportive of and conducive to intended upward educational and occupational mobility than are those of the middle and upper status categories, then a provisional basis will have been established for an understanding and interpretation of the findings reported in this study.

The socio-cultural conditions of the various strata will be discussed as they relate to six specific aspects of the environment, aspects selected because each has a direct relevance to upward educational and occupational mobility. These aspects are: (1) Independence and Self-Reliance Training; (2) Individualistic--Collectivistic Orientation; (3) Ambitious Mastery; (4) Present--Future Orientation; (5) Interpersonal Relationship Skills; and, (6) The Educational and Occupational Cognitive Environment.

Independence and Self-Reliance

The ability to perform tasks independently of others functions simultaneously as a necessary condition for upward mobility and also as a behavior which itself is often rewarded by others with actual educational or occupational advancement.

However, as a number of child rearing studies have shown, parental stress on independence training and self-reliance is weakest in the lower and strongest in the middle and upper social status categories. (Rosen and D'Andrade, 1959; Kohn, 1963) Consequently, inasmuch as independence and self-reliance are necessary conditions for upward mobility, the lower class child experiences a disadvantage relative to his middle class counterpart.

Individualistic--Collectivistic Orientation

Upward mobility in an industrial society almost always requires that a person be willing to subordinate close physical and social proximity with his family of orientation to the often required necessity of geographical mobility, i.e., that he be individualistically as opposed to collectivisticly oriented. Thus, those socialization practices which train and encourage a person to be individualistically oriented will better prepare him for upward mobility.

However, studies of child rearing practices have shown that the socialization patterns of the lower classes emphasize a collectivistic orientation while those of the middle and upper classes stress an individualistic orientation. (Kahl, 1965; Rosen, 1959; Strodbeck, 1958)

Ambitious Mastery

This aspect refers to the degree to which the sociocultural milieu encourages an individual to believe in the possibility of manipulating his physical and social surroundings to his own advantage. To one's peers and superiors, ambitious mastery manifests itself as "determination," "drive," "resourcefullness," etc. This aspect is similar to the independence and self-reliance aspect in that it functions simultaneously as a necessary condition for upward mobility and also as a behavior which in and of itself is often rewarded by others with actual educational and occupational advancement.

The extent to which the socialization patterns of the various strata instil and encourage the belief that that environment is to be and can be manipulated to one's own advantage is a positive function of the location of the stratum in the status hierarchy. Studies by Cox (1965), Kohn (1965), Rosen and D'Andrade (1959), and Strodbeck (1958) have all demonstrated that middle class parents, unlike lower class parents, are more likely to encourage their children to believe in the possibility of manipulating the world to one's own advantage.

Equally important is the finding that when mastery of the environment is attempted, middle class children are more likely to experience success than are lower class children. This of course serves to reinforce among middle class children the belief in mastery and to extinguish the belief among lower class children.

Present--Future Orientation

The process of upward mobility is one which often involves considerable long-range planning and preparation. Frequently, for an adolescent, such planning and preparation require a renunciation of the more immediate gratifications of life, e.g., an automobile, marriage, etc. Since the lower class child begins the vertical climb at a considerably greater distance than his middle or upper class counterpart and since the parents of the lower class child are less able to assist him financially, vertical mobility requires even more long range planning and pleasure renunciation on his part than on the part of the middle or upper class child.

However, while the research findings are not entirely consistent, the evidence seems to indicate that lower class culture places less emphasis than does middle class culture on future orientation, i.e., long-range planning and pleasure renunciation, and, conversely, that middle class culture places less emphasis than does lower class culture on present orientation. (Davis and Dollard, 1940; Drake and Cayton, 1945; Hollingshead, 1949; Rosen, 1956; and others)

Thus, the upwardly mobile lower class child is confronted with a double handicap: not only has he a further "social distance" to travel than his middle class counterpart, but his socialization has prepared him less adequately for the planning and pleasure renunciation which his journey will require.

Skills in Interpersonal Relationships

Vertical mobility in an urbanized, industrialized, and bureaucratic society requires that an individual be proficient in the skills of interpersonal relationships and manipulation. Like independence and self-reliance and ambitious mastery, skills in interpersonal relationships function simultaneously as a necessary condition for upward mobility and as a behavior which in and of itself often brings recognition in the form of educational and occupational advancement.

That the middle class child receives superior training and experience in interpersonal relationships than does the lower class child is a conclusion which has been reached by a number of writers.

One fundamental difference between the lower and middle classes in this regard lies in the informal association patterns of the classes. Living in a home where the parents frequently entertain and socialize with non-kin provides a child with an opportunity to develop a repertoire of appropriate responses for interaction with non-kin. Studies by Hollingshead (1949), Kahl (1962), Knupfer (1953) have shown that such informal socializing with non-kin is a frequent behavior pattern among the middle class and a very infrequent behavior pattern among the lower classes.

A second difference between the classes in this regard lies in the formal association patterns of the lower and middle status categories. Lower class people have been found to participate in fewer formal associations than do middle class people and to participate less in those few in which they do participate. It is quite likely that the skills which middle class parents acquire from such participation are transferred to their offspring and thus facilitate the latter's ability at interpersonal relationships.

A third and final difference between the lower and the middle classes is to be found in the extent to which the parents train their children to display respect toward authority figures, particularly the teaching and administrative staffs of the school systems. As Becker (1952), Hollingshead (1949) and others all have reported, lower class children display much less respect and exhibit much more improper deportment toward school authorities than do middle class children. Such behavior from the lower class child is likely to elicit negative responses from teachers, such responses in turn engendering negative attitudes on the part of the lower class child toward the school, an institution in which success is a prerequisite for upward mobility.

The Educational and Occupational Cognitive Environment

Three conditions which affect and are perhaps necessary for an adolescent to possess an upward mobility orientation and which would certainly enhance such an orientation are:

1. A knowledge of precisely what positions are classified as upper status.
2. A knowledge of the behaviors displayed by persons in such positions, one source of such knowledge being the presence of role models.

3. A knowledge of the means necessary to achieve such positions.

Such knowledge is not evenly distributed throughout the status structure. The further down the status hierarchy an individual is located:

1. The more restricted will be his knowledge of the range of positions classified as upper status.
2. The more restricted will be his opportunity to observe upper status role models.
3. The more inadequate will be his knowledge of the means necessary to achieve upper status positions.

While the exact nature of the relationship between knowledge of the range of positions classified as upper status and exposure to upper status role models to adolescent career orientations is not fully understood, a paraphrasing of Lazarsfeld's (1931) conclusion on this topic would seem to be appropriate; namely, that as the number of upper status positions visable to any given category of adolescents diminishes, the less frequently will those adolescents hear about such positions and the less will they be stimulated to choose one of them for a career goal.

Even if a lower class adolescent should become sufficiently aware of an upper status position and decide upon it as a career goal, he would still be confronted with the problem of acquiring knowledge sufficient to enable him to achieve that position. As studies by Ellis and Lane (1963), Lipset, Bendix, and Mahn (1955), and Toby (1957) have indicated, the lower class adolescent is at a severe disadvantage vis a vis his middle class counterpart in obtaining the knowledge necessary for upward mobility. Neither his family or their friends, nor his own friends, are likely to possess an adequate knowledge of the procedures required for gaining admission to college. Nor are these same people likely to know enough about the occupations "up there" to provide advice as to whether such a career choice is realistic or not.

Sources of Upward Mobility Orientations Among Lower and Upper Working Category Adolescents

Education of Parents and Parental Educational Discrepancies

Two plausible interpretations of the within-stratum bivariate relationship between education of parents and adolescent career orientations are possible:

1. Parents generally desire their sons to achieve an educational and occupational level at least equal to or "better" than that which the parents themselves have achieved. Thus, the higher the educational level of the parents, the higher the "base" from which the adolescent starts and therefore, as the data indicate, the greater the proportion of adolescents with high educational and occupational career orientations.
2. The higher the educational attainment of the parents, the more proficient they are at providing the type of milieu conducive to upward mobility.

With respect to the effect of maternal educational superiority, the interpretation of the data is identical with that presented in the review of the literature:

1. The social stratum of a family is determined primarily by the education and occupation of the male.
2. Educational training beyond high school usually confers upon the recipient at least some middle class attributes.
3. When a female with an education of 13 or more years marries a male whose social position is within the Upper or Lower Working category, the female experiences downward social mobility.
4. The female may consider the style of life characteristic of the Working class to be less than that to which she is accustomed or to which a person of her education is rightfully entitled.
5. Therefore, the female attempts to compensate for her own downward mobility by instilling in her sons a desire for high educational and occupational attainment. As the data suggest, she transmits these orientations to her children not only directly, but also indirectly through her husband.
6. Also, a woman with some education beyond high school, married to a man of the Working class, regardless of his education, is probably more proficient at providing the type of home milieu conducive to high career orientations than are most of the other women of her social stratum.

Family Size

An inspection of Tables 30 through 33 indicates that there are several Chi square values significant only between the .10 and .05 level. However, the general pattern of the data reveal that although varying independently of family size in the Upper and Lower Middle status categories, career aspirations and expectations vary inversely with family size in the Upper and Lower Working categories. The data thus pose two questions: (1) Why does any inverse relationship exist at all? (2) Why is this relationship found primarily in the two Working classes?

In response to the first question, one possible explanation may be found in the previously reported relationships between family size and conjugal and parental power and authority relations. That is, the research cited in Chapter II reported a number of forms of parental interaction which are detrimental to a high level of career orientation among children and adolescents. Among such forms were: parental authoritarianism and dominance, use of physical rather than verbal punishment, non-use of verbal rewards, encouragement, and praise, failure to set high goals, and failure to train for independence. These same studies also reported that the frequency and intensity of these behaviors varies positively with family size. Consequently, as family size increases, so do the frequency and intensity of the forms of parental interaction which are detrimental to high adolescent career orientations, and, therefore, the proportion of adolescents with high career orientations diminishes.

A second and perhaps complementary explanation is that parents who themselves have set high career goals for their children may deliberately have chosen to limit the size of their families.

While these plausible interpretations may partially account for the inverse relationship of family size and adolescent career orientations, they do not account for the presence of the relationship in the two Working classes and its absence in the two Middle classes.

One possible reason for the interaction of family size with social status, a reason supported by considerable research, is that the frequency and intensity of those forms of interaction detrimental to high career goals vary inversely with socioeconomic status and are thus disproportionately concentrated in the two Working status categories.

Also meriting consideration is that the financial resources of Lower class families for supporting, say, a college education, are considerably less than are the resources of Middle class families. Thus, as the size of the lower class family increases, the proportion of such limited resources available to support a high career goal for one or more members of that family diminishes. Consequently, lower class parents with large families may consciously decide not to instill in their children career goals whose achievement could not be supported by the family's strained resources.

Ordinal Position

Of all the variables studied in this research, that of ordinal position poses the most difficult problem of interpretation. This stems from two facts: (1) to properly assess the effect of ordinal position at least two controls must be invoked, i.e., social status and family size, and an additional two should be invoked, i.e., sex composition of the siblings and ages of the sibs. These controls are necessary since each is a variable which could possibly and probably does mask and confound the relationship of ordinal position with career orientations; (2) with even the first two controls invoked, to say nothing if all four were to be invoked, the relationship between ordinal position and career orientations which seems to emerge is one of a curvilinear nature that statistically interacts with one or more of the control variables. Such relationships are quite difficult to interpret and describe verbally.

With the complex relationship exhibited by the data in Table 35, about all that can be said in the way of interpretation is that while career orientations do not seem to vary independently of ordinal position, they do not vary inversely as predicted.

This contrary finding, which is not too unlike that reported by Rosen in his 1961 article on "Family Structure and Achievement Motivation," would seem strongly to suggest the necessity for further research into the problem, research which would invoke not only the first two controls suggested above, controls which have been employed both by this writer and by Rosen, but also the second two controls as well.

Intensity of Parental Achievement Pressure

Of the three major variables accounting for high career orientations among lower class parents, i.e., family size, education of parents and parental educational discrepancy, and parental pressure, the variable responsible for the widest range of within-stratum variation is parental pressure. The importance of this variable as a source of within-stratum variation is evidenced by a comparison of the greater within-stratum contingency coefficients for this variable with the smaller within-stratum coefficients for each of the other two variables. (The influence of the peer group is not here considered because of the probable symmetrical nature of that variable.)

The most plausible explanation for the importance of parental achievement pressure is that it serves as the primary vehicle by which the parents simultaneously convey and reinforce their high status career role expectations for their sons. The strength of this variable as a determinant of career goals serves to highlight the importance of the family in establishing and maintaining the career orientations of adolescents. For adolescents from the lower status categories, the variable focuses particular attention on the importance of the home as a source of upward mobility.

If achievement pressure is the primary vehicle by which parents convey and reinforce their high career orientation role expectations for their sons, then the positive relationship between social status and the intensity of achievement pressure is essentially a function of the fact that the higher the social status category, the greater is the proportion of parents who have established high career goals for their sons and who convey and reinforce these goals with moderate to strong achievement pressure.

The inverse relationship of parental pressure with family size is perhaps attributable to at least two factors, each of which has been discussed previously:

1. The proportion of parents setting high career goals has been found to vary inversely with family size. Therefore, if parental pressure is a vehicle for conveying and reinforcing such role expectations, the smaller the proportion of parents setting high career goals, the smaller the proportion of parents conveying and reinforcing such goals with moderate to strong achievement pressure.
2. The use of verbal forms of sanctioning, reasoning, and encouragement has been reported as varying inversely with family size. Since parental achievement pressure is a form of verbal reasoning and encouragement, it too can be expected to vary inversely with family size.

Influence of Peers

One interpretation of the influence of the peer group on the career goals of the subject has already been offered in the preceding chapter; namely, that subject "A" selects his peers on the basis of their possessing interests similar to his. Should this be the correct interpretation for all cases, then while the career goals of the peer group may serve to maintain and reinforce the career goals of the subject, the peer group cannot be considered to be a determinant of the career goals of the subject.

A second interpretation is that the career orientations of the peer group function essentially as an asymmetrical determinant of the career orientations of the subject. While both processes are probably involved, some support for the second interpretation comes from the previously cited research of Alexander and Campbell (1964). Applying Heider's (1958) balance model of interpersonal relations, they ascertained that while there is the predicted positive relationship between the college plans of an S and his peer "B," the strength of this relationship is greater when S's friendship choice of B is reciprocated by B than when it is not. Furthermore, using a follow-up longitudinal design, these authors found that S was more likely to actually attend college when B, who had also planned to attend college, reciprocated S's friendship choice than when B had not.

The fact that a reciprocation of friendship choice increased the probability that S would actually attend college, an event which occurred after the friendship had been formed, would seem to indicate that at least a balanced or reciprocal peer relationship is a reinforcer or even a determinant of an adolescent's career goals.

What is necessary to clarify this problem, of course, is a longitudinal panel design which would survey a sample at periodic intervals from the fifth or sixth grade through high school graduation and even beyond.

The Consequences of Chronic Economic Distress

An interpretation of the consequences of economic distress on the career orientations of lower strata males has been presented in the preceding chapter. The interpretation assumed a rational model of human behavior. The basic propositions of the model asserted that:

1. Those most adversely affected by economic distress are adults of the lower socioeconomic strata.
2. There have been concerted efforts by many levels of government to communicate to the public an increased awareness and understanding of the vicious cycle of poor educational preparation and job and economic insecurity.
3. Those most receptive to such communications may well be those who themselves have been most adversely affected by economic distress, i.e., those of the lower socioeconomic strata.

4. Having internalized the content of such communications, lower strata parents may proceed to set high educational and occupational goals for their sons in order that they may be spared the experience of repeating their parents economic plight when they reach adulthood.

It was further noted that while such a "model" may plausibly account for some of the differences in the working strata between the two economic areas, it is not adequate to account for any of the middle strata differences between the two economic areas. It is possible that an additional and complex analysis of the present data may provide some insight into the middle strata differences.

The Question of Theoretical Integration

In the first two sections of the preceding discussion, the writer adhered closely to the format used by Lipset and Bendix (1960) in their book Social Mobility in Industrial Society; namely, a general discussion of the conditions responsible for unequal social mobility followed by a specific discussion of the sources of upward mobility among individuals in the lower classes. One liability of this format is that it provides little integration of the two topics and tends to create the impression that each topic could be a disparate area of study. The question which thus arises is whether the substance of this impression is correct. If it is not, can the two areas be integrated in a theoretical fashion? And, for this particular study, it could be asked whether the third topic, economic distress, bears any relationship to the first two.

Inasmuch as all three areas constitute but different aspects of the same phenomenon, social stratification, it would seem that it should be possible to integrate comprehensively the findings of each of the three areas by demonstrating that they are all deducible from certain higher order theoretical propositions.

However, in the opinion of the writer, the paucity of a logically consistent and empirically validated theory of social stratification regretably precludes any present effort at such comprehensive integration. Parenthetically, it might be noted that the lack of theoretical integration found in most of the related literature provides little evidence to refute this conclusion. Nevertheless, the lack of comprehensive integration does not imply that a lower order integration of at least some of the findings is impossible. Two findings which possibly can be so integrated are those of the effects of maternal educational superiority and of economic distress on career orientations.

As noted in Chapter V, one of the possible consequences of chronic economic distress is the reduction of chances for upward mobility and the increasing of the chances for downward mobility. Downward mobility, as noted in the discussion of maternal educational superiority, may result in some form of psychological malaisé which in turn may cause the affected individual to engage in behaviors to reduce the intensity of the malaisé, e.g., political extremism, strong prejudice, serious psychological disturbances, or efforts to regain the lost social status via upward career mobility.

When the downwardly mobile individual is relatively young and living in an economically expanding area, a reasonable compensatory mechanism is for him to attempt to regain his former social position via career mobility. However, when a man reaches his late thirties or forties (as have the majority of the fathers in this sample) and when he lives in an economically contracting area (as do all those fathers from the depressed cities), then his chances to regain his lost social position via career mobility diminish sharply. Consequently, among downwardly mobile families where the father's own chances for career mobility are severely restricted, as is probably the case for the majority of families in the distressed cities, it would be reasonable to expect that many of these fathers (and their spouses) would attempt to compensate for their downward mobility by encouraging considerable career mobility in their sons.

What is necessary to substantiate this reasoning are data showing that a significantly greater proportion of families now in the two working classes have been downwardly mobile in the distressed than in the prosperous cities, and that the career orientations of adolescents with downwardly mobile working class parents are significantly higher than those of adolescents with non-mobile working class parents. Unfortunately, limitations of the project's resources have not permitted the coding of the data pertinent to this problem.

In summary, then, it has been argued that the present status of stratification theory does not facilitate a comprehensive integration of the findings reported in this study. However, through a lower order of abstraction, it has been possible to theoretically relate the findings of higher career orientations of working class adolescents under the condition of marked maternal educational superiority and under the condition of economic distress by showing how both phenomena are deducible from certain generalizations concerning the effects of downward social mobility.

Conclusion

Regardless of whether the reader may agree with the author on the interpretation of the data, it is the considered judgment of this writer that there is one common ground on which both parties can concur; namely, that the educational and occupational career aspirations and expectations of adolescents do not vary at random, but rather vary as a complex and still inadequately understood function of a number of variables, some but not all of which have been defined conceptually and operationally in this research.

The implication of this assertion is deceptively obvious and simple: If research teams are provided with the necessary financial and intellectual resources, then, in the opinion of the writer, there is a high probability that within the foreseeable future a model can be developed which will possess the capability of explaining almost all of the variation in adolescent educational and occupational career orientations, both on a category and on an individual basis. The importance of such a development follows logically from the sequences of scientific progress: explanation -> prediction -> modification.

CHAPTER VII

SUMMARY AND CONCLUSIONS

Origin and Importance of the Research

The period from the 1940's to the present has witnessed many efforts by behavioral scientists to identify and measure the variables which account for the variation in intended social mobility among youth, i.e., adolescent educational and occupational aspirations and expectations. One theme which has characterized much of this research is the progressive utilization of the techniques of multivariate analysis designed to increase the proportion of accounted--for--variation in the dependent variable and thus to explain better the conditions responsible for the differences in adolescent career orientations. This research report represents a continuation of that trend.

This same time period has also witnessed the appearance of structural unemployment and one of its consequences--chronic economic distress. Relatively little is known about the impact of economic distress on the educational and occupational career orientations of youth. Therefore, an adolescent population was selected from two economically distinct sets of urban areas in the Commonwealth of Pennsylvania. One set consisted of three middle-size cities with 10 year histories of severe economic distress (mean 10 year unemployment rate, 1950 - 1960 = 11.4 percent). The second set consisted of three middle-size cities with 10 year histories of economic prosperity (mean 1950 - 1960 unemployment rate = 4.2 percent). Through the introduction of certain statistical controls it has been possible to assess some aspects of the nature and the extent of the impact of chronic economic distress on adolescent educational and occupational aspirations and expectations.

There are several respects in terms of which the research may be considered of theoretical and practical importance:

1. It provides some additional understanding of the processes which orient youth to fill the various occupational and educational positions available in an industrial society.

2. It serves as a source of knowledge and information pertinent to the effects of social stratification on the educational and occupational career choices of youth.
    a. It provides some understanding of the conditions responsible for the disproportionately high upward mobility orientations among youth from the middle and upper social strata and for the disproportionately low upward mobility orientations among youth from the lower strata.
    b. It provides some understanding of the conditions which function as sources of upward mobility among culturally deprived, i.e., lower strata, youth.

3. It permits a preliminary assessment of the impact of chronic urban economic distress on the educational and occupational career orientations of youth.

4. Since the research is longitudinal in design, involving data collections from the same 6,000 subjects in 1963 and in 1965, the 1963 study provides a base line which will facilitate an analysis of the conditions and processes responsible for career change and constancy among youth during the crucial final two years of secondary education.
5. It provides an empirical base upon which can be predicated specific suggestions designed to utilize more efficiently the human resources available in the youth of the nation.

Statement of the Problem

Because of limited resources it has been possible to analyze only the data collected in 1963 from the male segment of the sample. Subsequent publications will contain the results of the analysis of the female and longitudinal data.

The research based on the 1963 data had two objectives:

1. To synthesize the results of previous studies and from such a synthesis develop a series of multi-variate hypotheses capable of increasing the proportion of variation in adolescent career orientations which can be accounted for by specific measurable variables.
2. To assess the consequences of chronic economic distress upon the career orientations of youth.

The research based on the longitudinal data has one additional objective: to identify and measure those variables which account for career orientation change and constancy during the last two years of secondary school.

Procedure

The population for the research consists of the adolescent youth of six middle-size (population 50,000 to 100,000) cities in the Commonwealth of Pennsylvania. These cities were selected on the basis of the following criteria:

1. All were within the same state and thus subject to identical constitutional, legal, and educational policies.
2. All were economically accessible from the research center at University Park, Pennsylvania.
3. All were somewhat comparable in population.
4. All were similar in Commonwealth legal status, i.e., third class cities.
5. Three (Altoona, Johnstown, and Wilkes-Barre) had ten year histories of severe economic distress (mean 1950 - 1960 unemployment rate = 11.4 percent), and three (Bethlehem, Harrisburg, and Lancaster) had ten year histories of economic prosperity (mean 1950 - 1960 unemployment rate = 4.2 percent).

Since a probability sample of the population would have grossly exceeded the resources of the project, the cohort of the high school class scheduled to graduate in June of 1965 was selected as the "sample" for analysis. This cohort, consisting of approximately 6,000 males and females who, in 1963, were enrolled in the public and parochial secondary schools in the six cities, was surveyed twice with a named-respondent instrument: in April and May of 1963, and in April and May of 1965.

The instrument used in the research contained items designed to tap information for the following variables:

1. Dependent Variable
    - a. Educational aspirations and expectations
    - b. Occupational aspirations and expectations.

    Note: An aspiration refers to the idealistic dimension of a career orientation, an expectation to the realistic dimension.
2. Independent Variables
    - a. Occupation and education of the father (required for the calculation and assignment of family socioeconomic status)
    - b. Family size and ordinal position of the respondent
    - c. Education of the mother
    - d. Intensity of paternal and maternal achievement pressure
    - e. Paternal and maternal educational aspirations and expectations for the respondent, parental occupational aspirations and expectations for the respondent.
    - f. Educational and occupational career orientations of the three best friends (the peer group) of the respondent.

The questionnaire was pre-tested on an independent sophomore population of approximately 250 students. In the actual survey, students completed the instrument either in home or class rooms, or in an auditorium or cafeteria, whichever arrangement was preferred by the personnel of the cooperating school. Actual administration time was 45 to 55 minutes. Of the 3047 male questionnaires filled out, 93.6 percent were accepted for analysis. A comparison of the percent of the males who responded to the educational expectational item by stating that they actually expected to attend a four year college (39.0 percent) with the percent of males who had graduated from these same schools in June of 1964 and were actually enrolled in a four year college (35.0 percent) yielded a difference of four percentage points. This minimal difference was considered satisfactory evidence for some degree of external validity for the instrument.

Skilled statistical clerks were employed to transfer the data to IBM code sheets and then to IBM punch cards. All data transferance was verified twice.

In testing the hypotheses, the following statistical techniques of analysis were used: test of difference between proportions, factorial analysis of variance with adjustment for disproportional cell n's, Chi square, simple and multiple correlation and regression.

Research Findings

The following represents a complete statement of all of the major research findings. It is suggested that the reader supplement the verbal statement of findings with references to the numerical data tables which contain the measurements of the existence, direction, and degree of association. In the findings, the term "high career orientations" refers to an educational goal of four or more years of college and/or to an occupational goal involving a minor to major professional or administrative position.

Determinants of Parental Career Orientations

I. Socioeconomic Status

The career orientation scores of individual parents and the proportion of parents per SES category with high career orientation scores vary positively with socioeconomic status.

II. Education of Parents

A. With Socioeconomic Status Collapsed

The proportion of parents with high career expectation scores varies positively with the educational attainment of each parent.

B. Within each Hollingshead Social Status Category:

1. The proportion of parents with high career expectation scores varies positively with the educational attainment of each parent.

2. The proportion of both mothers and fathers with high career expectation scores:

    a. Is greater under the condition of marked maternal educational superiority than under the condition of marked paternal educational superiority.

    b. Is greater under the condition of marked maternal educational superiority than under two conditions of parental educational equality, i.e., M = F = 11-, M = F = 12, but is less than that under the equality condition of M = F = 13+.

    c. Is greater under the condition of marked maternal educational superiority than for the social status category as a whole.

3. The intensity of the effect of maternal educational superiority varies inversely with socioeconomic status.

III. Family Size

A. With Socioeconomic Status Collapsed

The career orientation scores of individual parents and the proportion of parents for each family size unit with high career expectation scores vary inversely with family size.

B. Within each Hollingshead Social Status Category

1. The proportion of parents with high career expectation scores varies independently of family size in the Upper Middle social status category.
2. The proportion of parents with high career expectation scores varies inversely with family size in the Lower Middle, Upper Working, and Lower Working social status categories.
3. The intensity of the inverse relationship of family size with parental career expectations varies negatively with socioeconomic status.

Determinants of Adolescent Career Orientations

I. Socioeconomic Status

The career orientation scores of individual Ss and the proportion of Ss per SES category with high career orientation scores vary positively with socioeconomic status.

II. Education of Parents

A. With Socioeconomic Status Collapsed

The proportion of Ss with high career orientation scores varies positively with the educational attainment of each parent.

B. Within each Hollingshead Social Status Category

1. The proportion of Ss with high career orientation scores varies positively with the educational attainment of each parent.

2. The proportion of Ss with high career orientation scores:

   a. Is greater under the condition of marked maternal educational superiority than under the condition of marked paternal educational superiority.

   b. Is greater under the condition of marked maternal educational superiority than under two conditions of parental educational equality, i.e., M = F = 11-, M = F = 12, but is less than that under the equality condition of M = F = 13+.

   c. Is greater under the condition of marked maternal educational superiority than for the social status category as a whole.

3. The intensity of the effect of maternal educational superiority appears to vary independently of socioeconomic status.

III. Family Size

A. With Socioeconomic Status Collapsed

The career orientation scores of individual Ss and the proportion of Ss with high career orientation scores for each family size unit, vary inversely with family size.

B. Within each Hollingshead Social Status Category

1. The proportion of Ss with high educational aspirations and high occupational aspirations and expectations varies independently of family size in all social status categories except the Upper Working.

2. The proportion of Ss with high educational expectations varies independently of family size in the Upper and Lower Middle social status categories.

3. The proportion of Ss with high educational expectations varies inversely with family size in the Upper and Lower Working social status categories.

4. The intensity of the inverse relationship between family size and educational expectations appears to vary negatively with socioeconomic status.

IV. Ordinal Position

A. With Socioeconomic Status and Family Size Collapsed

The proportion of Ss with high educational expectations appears to be greatest among first born, somewhat less among second born, and least among intermediate born, with last born ranking between second and last born.

B. With Socioeconomic Status Collapsed and Family Size Controlled

The proportion of Ss with high educational expectations appears to be greatest among first borns, somewhat less among second and last borns, and least among intermediate borns.

C. Within each Hollingshead Social Status Category

1. With Family Size Collapsed

The proportion of Ss with high educational expectations appears to be related to ordinal position in a complex curvilinear fashion too intricate to be described in a verbal summary without reference to the data table.

2. With Family Size Controlled

Comment the same as that under C--1 above.

V. Parental Achievement Pressure

A. Two Determinants of the Intensity of Parental Achievement Pressure

1. The parental pressure scores of individual Ss and the proportion of Ss per SES category reporting high parental pressure vary positively with socioeconomic status.

2. The parental pressure scores of individual Ss and the proportion of Ss per family size unit reporting high parental pressure vary inversely with family size.

3. Within each Hollingshead Social Status Category

a. The proportion of Ss reporting high parental pressure appears to vary positively with family size in the Upper Middle social status category.

b. The proportion of Ss reporting high parental pressure appears to vary inversely with family size in the Lower Middle, Upper and Lower Working social status categories.

B. Parental Pressure as a Determinant of Adolescent Career Orientations

1. With Social Status and Family Size Collapsed

The proportion of Ss with high career orientations and the mean status expectation scores of the Ss vary positively with the intensity of parental pressure.

2. Within each Social Status Category with Family Size Collapsed

The proportion of Ss with high career orientations and the mean status expectation scores of the Ss vary positively with the intensity of parental pressure.

3. Within each Family Size Unit within each Social Status Category

   The proportion of *Ss* with high career orientations and the mean status expectation scores of the *Ss* vary positively with the intensity of parental pressure.

VI. Career Orientations of the Peer Group

A. With Social Status Collapsed

   The proportion of *Ss* with high educational orientations varies positively with the proportion of the peer group expressing high educational aspirations.

B. Within each Hollingshead Social Status Category

   The proportion of *Ss* with high educational orientations varies positively with the proportion of the peer group expressing high educational aspirations.

Consequences of Chronic Economic Distress

In summarizing the data on the relationship of chronic economic distress to the educational and occupational career orientations of youth, the following conclusions may be drawn, depending upon which of two assumptions is invoked:

I. Assumption One: That the socioeconomic status composition of a community is relatively independent of chronic economic distress.

   Conclusion: There is no evidence which would indicate that chronic urban economic distress has any marked effect on adolescent educational and occupational career orientations.

The evidence for this conclusion is found in the data which have indicated that: (A) Much, if not all, of the initial differences between the two sets of cities in adolescent career orientations can be attributed to the lower social status level in the distressed communities. (B) What little adverse effect that does exist seems confined to the middle classes and even though this effect is statistically significant, it is of an extremely small magnitude.

II. Assumption Two: That the socioeconomic status composition of a community is not independent of but is adversely affected by chronic economic distress.

Conclusion: If chronic economic distress tends to lower the social status level of a community, then, because adolescent career orientations are a positive function of socioeconomic status, chronic economic distress adversely affects the educational and occupational career aspirations and expectations of youth.

III. No Assumptions: Regardless of the relationship, if any, between economic distress and the social status structure of a community, the data presented in the study provide evidence suggesting that economic distress interacts with socioeconomic status in the following manner:

A. It increases the proportion of working and middle class parents in the distressed areas (versus the prosperous areas) who exert high achievement pressure on their sons.

B. It increases the proportion of working class parents in the distressed areas (versus the prosperous areas) who aspire and expect their sons to achieve a college education and/or a high ranking occupation.

C. It increases the proportion of working class adolescents in the distressed (versus the prosperous areas) who aspire and expect to achieve a college education and/or a high ranking occupation.

Conclusions and Implications

Although it is not possible to assert that the data reported in this study are representative on a nationwide basis, the fact that the findings parallel those of many other studies conducted independently and in other regions of the nation would seem to permit at least some speculative extrapolations to populations beyond that of this study itself.

One important conclusion is that although much research remains to be done before the career goals of individuals *qua* individuals can be predicted with any high degree of accuracy, the extremely high coefficients from the category correlation analysis indicate rather strongly that it is possible to reliably predict the career orientations of aggregates of adolescents on the basis of socioeconomic data alone. The implication of this should be obvious: By knowing the socioeconomic status composition of any given geographic area and the number of male adolescents in each status category from that area, regression predictions can be made several years in advance as to the number of males who will be seeking admission to institutions of higher learning.

A second implication is that the research has confirmed once again that the stratification structure of American society functions in a self-perpetuating fashion, providing conditions more favorable to upward mobility among youth of the middle and upper strata and conditions less favorable to upward mobility among youth of the lower strata. Thus, the study revealed that although the two middle strata consisted of only 28 percent of the total sample population, adolescents from these two strata comprise 45 percent of all the sample males who expect to attend college and 40 percent of those who expect to achieve a high status occupation. Furthermore, on the basis of data from other studies, it is to be expected that significantly more of the middle strata males will actually achieve their high career goals than will the lower strata males.

However, although the research has provided some understanding of a few of the mechanisms which account for the self-perpetuation of the open-class system, it has also provided an understanding of some of the conditions which might and could reduce the degree of self-perpetuation.

First: Having shown career orientations to vary positively with parental education and occupation, it may be predicted that as the structure of the American labor force continues to change with a progressive reduction in the proportion of blue-collar industrial-production occupations, occupations which require little if any education beyond high school, and a concomitant increase in the proportion of service and white collar occupations, occupations requiring a high school diploma or more, the proportion of all adolescents expecting to and actually enrolling in institutions of higher learning will probably continue to rise. Since a college education has become the primary channel for upward mobility, this fundamental shift in the labor force should in and of itself increase the fluidity of the social structure.

Second: Having shown family size to be inversely related to educational and occupational mobility orientations, particularly in the lower status categories, it is reasonable to anticipate an increase in the proportion of college enrollments from these lower strata as the knowledge and techniques of family planning become progressively disseminated and accepted.

Third: As research continues to provide an increased understanding of the effect of various types of parental interaction and home environment on the formation and maintenance of adolescent career goals, it may well become feasible to provide parents with suggestions on how to create a home atmosphere conducive to high career orientations for their children. Such information could be made available by local, state, or federal agencies as well as by the school systems and by organizations such as the P.T.A.

Fourth: As understanding increases of how the school itself functions in the establishment and maintenance of adolescent career goals, certain programs could be implemented to create and improve those conditions conducive to high adolescent career orientations. Such programs might involve the structuring of friendship opportunities which would increase the probability that students from the lower strata would establish peer relations with those students from the middle strata who have high educational or occupational goals. Also, special guidance programs could be arranged which would ensure that those youth who most need adequate career guidance, i.e., the youth from the lower strata, would receive such advice and counsel.

Fifth: The data have indicated that the lower the social status, the smaller is the proportion of adolescents who actually expect to achieve their stated aspirations of a college education and/or a high ranking occupation. It has been assumed, by definition, that the extent of the difference between an aspiration and an expectation is an inverse function of the adequacy of facilities, most probably of financial facilities. To the extent that this assumption is valid, it would seem possible that the proportion of lower strata adolescents who would actually expect to achieve their high aspirations could be increased by establishing comprehensive programs of scholarships, loans, or work and study programs, much like those programs pioneered by Antioch College and Drexel Institute of Technology.

Suggestions for Further Research

It should be rather obvious to any reader who has attempted to understand the substance of this study that considerably more research is necessary if a true scientific explanation of adolescent career orientations is to be achieved. When such additional research is undertaken, it is hoped that some of the following suggestions will be accorded careful consideration.

1. A greater understanding is necessary of the nature of a career aspiration and a career expectation and of the relationship between the two as well as how the respondent himself interprets each dimension.

2. A greater understanding is necessary of the role of the family in establishing adolescent career goals. While some of the required data can be secured from the adolescent himself, much of it would require careful and detailed interviews with the parents and siblings themselves. Such interviews would be useful in obtaining data on:

    a. Paternal and maternal career goal expectations for their offspring.

    b. Those forms of parental and conjugal interaction as are hypothesized to be related to the formation, conveyance, and reinforcement of adolescent career goals. It would also be important to ascertain the nature of the relationship of these forms of interaction with family size, ordinal position, and other similar variables.

    c. The consequences of educational and occupational status discrepancies between the parents on adolescent career orientations.

    d. The nature, amount, and type of educational and occupational advice given to the adolescent by each parent, friends of the parents and of the adolescent, and by the sibs.

    e. The value structure of the family.

3. A greater understanding is necessary of the cognitive range of occupational and educational career goals and of how the form and content of this range varies with variables such as socioeconomic status.

4. A greater understanding is necessary regarding what the conditions are which determine the specific *type* of occupation an adolescent selects as a career goal. It is no doubt true that more is known about the determinants of the *stratum level* of an occupational goal than of the determinants of the *specific type* of occupation chosen within that stratum. Much promising research on the determinants of the *type* of occupation selected has been done with the use of values as the independent variable. More research with this independent variable would seem to be advisable.

5. A greater understanding is necessary of the role of the school in the formation, maintenance, and reinforcement of adolescent career choices. Particular emphasis should be placed on the role of the teacher and of the guidance counselor.

6. More knowledge is necessary on the relationship of such psychological variables as personality and intelligence to career choice.

7. More knowledge is necessary of the role of the peer group in the formation of adolescent career goals. It is suggested that such research assume a longitudinal panel design and span at least six to eight grade levels.

8. If career orientations are conceptualized as a specific form of goal-oriented behavior, then, because goal-oriented behavior is amenable to study in a laboratory setting, it becomes possible to subject the determinants of career orientations to analysis under the controlled conditions of the social psychological laboratory. It would seem that laboratory studies of the relationship of goal-oriented behavior to social status, family size, ordinal position, parental status discrepancies, and peer influences, as well as other pertinent variables, would offer distinct and supplementary advantages to the present survey type of analysis.

9. Methodologically speaking, considerable effort should be devoted to the conceptualization and operationalization of variables whose mathematical properties would more closely approximate the assumptions of the powerful statistical techniques available to contemporary behavioral scientists.

10. Also from a methodological standpoint, considerably more effort should be devoted to improving the form and content of the research instruments and of the method of administration itself so that the no-response and do-not-know rates could be reduced to a minimum and so that response validity and accuracy could be increased to a maximum.

11. Finally, from both a methodological and a theoretical standpoint, many more resources must be allocated to the development and utilization of longitudinal panel designs which would follow a given sample from elementary school, through high school and college, and then into the "actual" occupational world. Only through such a procedure will it be possible to understand the complex dynamics of career orientation formation, change, and constancy; and only through such a procedure will it be possible to evaluate the predictive ability of career orientation models and to develop adjustive parameters capable of compensating for what certainly will be less than absolute predictability.

Finally, it is the judgment of the writer that the "state of the arts" is such as to both warrant and justify an interdisciplinary study of the determinants of adolescent educational and occupational orientations using a longitudinal panel design with a national probability sample.

The advisability of an interdisciplinary approach is suggested by the mounting evidence that the range of the known and hypothesized determinants of the dependent variable extends far beyond what have been generally considered the "orthodox" boundaries of any single behavioral science and beyond the range of the intellectual capabilities which can be reasonably expected of a person trained in only one of the sciences.

The advisability of a mathematically oriented approach is suggested by the sheer number and extreme complexity of the determinants of the dependent variable. Both factors are progressively requiring data reduction and integration techniques which tax the capability of many contemporary statistical techniques.

The advisability of the longitudinal panel design has been discussed above. The advisability of a national probability sample is suggested because, in the opinion of the writer, the use of local, statewide, or even regional samples seems to have reached a point of diminishing marginal utility. All such samples suffer, as does the one employed in this study, from the same limitation--the inability to make valid generalizations beyond a parochially defined universe. This inability constitutes a liability in any scientific endeavor, where one of the ultimate goals is always the development of valid generalizations.

Of course, such a research project would require an investment of several millions of dollars over a time period of not less than ten years. However, evaluated in perspective of the financial expenditures in other fields of science, e.g., space research and high energy physics, such an expenditure would seem to be both minimal and prudent in light of the theoretical and practical knowledge which reasonably can be expected to accrue from such an effort.

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APPENDIX A

Career Orientation Research Instrument

____ ____

IBM

PENNSYLVANIA HIGH SCHOOL STUDENT STUDY

The Pennsylvania State University

PLEASE PRINT

____
(LAST NAME)

____
(FIRST NAME)

____
(MIDDLE INITIAL)

____
(FULL NAME OF YOUR SCHOOL)

____
(NAME OF CITY)

Your Sex: ____________ **(MALE)** ____________ **(FEMALE)**

PURPOSE OF THE RESEARCH

This questionnaire is the second part of a study being conducted in six Pennsylvania cities. The first part, as you may remember, was conducted about two years ago. The purpose of the study is to learn more about what students are planning to do after they get out of high school. We believe that you will find the questionnaire interesting to answer.

THIS IS NOT A TEST: There are no right or wrong answers. There are only responses which are frank and honest. *No one in your school will ever see your questionnaire or your responses.* Please answer each question to the best of your ability. Please answer each question frankly and honestly.

INSTRUCTIONS

I. A number of items use the terms "mother", "father", "sister", and "brother". If you are currently living with your natural mother and father and natural brother and sister, these terms should be taken to mean your natural parents and natural brothers and sisters. If you are not currently living with your natural mother or father, or with your natural brothers and sisters, then the terms should be taken to mean your *step*-mother, *step*-father, male guardian, or female guardian, *step*-brother, or *step*-sister.

II. READ ALL INSTRUCTIONS very carefully, especially those instructions on pages 4 (Item 43) and 7 (Items 50-69).

III. A few items ask you to write several words. *Please write very clearly.*

IV. The small numbers to the left of the blank response category brackets are for IBM data processing equipment. These numbers aid in tabulating your responses at the research office.

V. If you have a problem, raise your hand and a research worker will come to your place and assist you. *Please continue to answer the items with which you have no problem until the research worker comes to your place.* Otherwise, you will not finish on time.

VI. GIRLS: In answering the items on occupations, you should think of "housewife" as an occupation.

SAMPLE ITEM

Most of the items in the questionnaire can be answered by placing an [X] in the bracket to the left of the response choice which you select as your answer.

A sample item would be:

75. Which sport do you like best?

1. [ ] Tennis
2. [X] Football
3. [ ] Basketball
4. [ ] Hockey
5. [ ] Golf
6. [ ] Baseball

The person responding to this item liked football best so he placed an [X] in the bracket to the left of the response choice which said "football."

Thank You: You May Now Turn To Page Two and Begin

CARD ONE

12. How old are you today?

1. [ ] 14 years
2. [ ] 15 years
3. [ ] 16 years
4. [ ] 17 years
5. [ ] 18 years
6. [ ] 19 years
7. [ ] 20 years
8. [ ] 21 years

13. What is your racial background?

1. [ ] White
2. [ ] Negro
3. [ ] Oriental
4. [ ] Other (Specify:__________________)

14. What is your sex?

1. [ ] Male
2. [ ] Female

15. How many years have your parents lived in this community?

1. [ ] 0 - 2 years
2. [ ] 3 - 5 years
3. [ ] 6 - 8 years
4. [ ] 9 - 11 years
5. [ ] 12 - 14 years
6. [ ] 15 - 17 years
7. [ ] 18 - 20 years
8. [ ] Longer than 20 years

16. Where was your father born?

1. [ ] The United States or Canada
2. [ ] South or Latin America (Puerto Rico, Cuba, Mexico, Brazil, etc.)
3. [ ] Ireland
4. [ ] England, Scotland, New Zealand, Australia
5. [ ] Eastern Europe (Hungary, Poland, Czechoslavakia, Greece, the USSR, etc.)
6. [ ] Western Europe (West and East Germany, Netherlands, France, Belgium, etc.)
7. [ ] Scandinavia and Northern Europe (Sweden, Denmark, Norway, Finland, etc.)
8. [ ] Southern Europe (Italy, Spain, Portugal)
9. [ ] Asia and the Middle East (All Asian nations, Turkey, all Arab nations, Israel)

17. Where was your mother born?

1. [ ] The United States or Canada
2. [ ] South or Latin America (Puerto Rico, Cuba, Mexico, Brazil, etc.)
3. [ ] Ireland
4. [ ] England, Scotland, New Zealand, Australia
5. [ ] Eastern Europe (Hungary, Poland, Czechoslavakia, Greece, the USSR, etc.)
6. [ ] Western Europe (West and East Germany, Netherlands, France, Belgium, etc.)
7. [ ] Scandinavia and Northern Europe (Sweden, Denmark, Norway, Finland, etc.)
8. [ ] Southern Europe (Italy, Spain, Portugal)
9. [ ] Asia and the Middle East (All Asian nations, Turkey, all Arab nations, Israel)

18-20. What are the ages of EACH ONE of your brothers and sisters? NOTE: If you have no brothers and/or no sisters, place a checkmark in the category "No brothers," or "No sisters."

Brothers		Sisters
____		____
____	*Oldest*	____
____		____
____	*to*	____
____		____
____	*Youngest*	____
____		____

No Brothers [ ] No Sisters [ ]

21. What kind of program are you taking in school?

1. [ ] Academic or College Prep.
2. [ ] Science
3. [ ] General
4. [ ] Commercial or Business
5. [ ] Vocational Agriculture
6. [ ] Vocational Industrial Arts
7. [ ] Other (Specify:__________________)

22. How would YOU feel if, after you have completed your education (high school, technical, business, nursing school, college, etc.) you were to have the same kind of job that your father has now?

1. [ ] I would like it very much
2. [ ] I would like it somewhat
3. [ ] I would dislike it somewhat
4. [ ] I would dislike it very much
5. [ ] Other (Specify:__________________)

23. How often does your father attend a worship service in a church or synagogue?

1. [ ] Never
2. [ ] Seldom
3. [ ] Several times a year
4. [ ] About once a month
5. [ ] Two or three times a month
6. [ ] About once a week
7. [ ] More than once a week

24-25. What is the religious preference of your father? NOTE: Please be as precise as possible in giving the specific religious preference of your father. Example: Baptist, Methodist, Roman Catholic, Reform Jewish, United Church of Christ, etc.

____
Religious Preference of Father

26. How often does your mother attend a worship service in a church or synagogue?

1. [ ] Never
2. [ ] Seldom
3. [ ] Several times a year
4. [ ] About once a month
5. [ ] Two or three times a month
6. [ ] About once a week
7. [ ] More than once a week

27-28. What is the religious preference of your mother? NOTE: Please be as precise as possible in giving the specific religious preference of your mother.

____
Religious Preference of Mother

29. How would your FATHER feel if, after you have completed your education (high school, technical, business, nursing school, college, etc.) you were to have the same kind of job that he has now?

1. [ ] He would like it very much
2. [ ] He would like it somewhat
3. [ ] He would dislike it somewhat
4. [ ] He would dislike it very much
5. [ ] Other (Specify:____________________)

30. Are your mother and father now living?

1. [ ] Both are living
2. [ ] Only my father is living
3. [ ] Only my mother is living
4. [ ] Neither parent is living

31. Are your parents divorced or separated?

1. [ ] They are not divorced or separated
2. [ ] They are divorced
3. [ ] They are separated

32. With whom do you live?

1. [ ] With both my mother and father
2. [ ] With only my mother
3. [ ] With only my father
4. [ ] With my mother and *step*father
5. [ ] With my father and *step*mother
6. [ ] With my aunt and/or uncle
7. [ ] With my grandparents
8. [ ] With other relatives or guardians
9. [ ] Other (Specify:____________________)

33. Would you say that in your home it has been just about taken for granted that you will continue your education after you get out of high school? NOTE: "To continue your education" means to go on to technical or trade school, business school, two or four years of college, etc.

1. [ ] Yes
2. [ ] No
3. [ ] Do not know

34-37. RANK the following five items in terms of their importance to you in selecting a job after you complete your education. RANK from 1 to 5. 1 for the first most important, 2 for the second most important, etc., all the way through 5.

1. [ ] The security of steady work
2. [ ] The opportunity for rapid rise
3. [ ] The enjoyment of the work itself
4. [ ] Friendly people to work with
5. [ ] A high income

38. Which one of the following best describes your own situation with respect to the making of important decisions that affect you personally?

1. [ ] My parents usually make the decision without first asking me how I feel about the matter
2. [ ] My parents usually make the decision but only after asking me how I feel about the matter
3. [ ] Usually, my parents and I talk over the matter and then we make the decision more or less together
4. [ ] I usually make the decision myself, but only after first talking things over with my parents
5. [ ] I usually make the decision myself without first asking my parents how they feel about the matter

39. Which ONE of the following statements is most true about continuing your education after high school?

1. [ ] My father *never* urges me to continue my education
2. [ ] My father *sometimes* urges me to continue my education
3. [ ] My father *often* urges me to continue my education
4. [ ] My father *constantly* urges me to continue my education

40. Is your father currently employed?

1. [ ] Yes
2. [ ] No
3. [ ] Do not know

41. (IF YOUR FATHER IS NOT CURRENTLY EMPLOYED), which ONE of the following statements best describes your father's present employment condition?

1. [ ] My father is retired
2. [ ] My father is not physically able to work
3. [ ] My father is temporarily out of work and is receiving unemployment benefits
4. [ ] My father is temporarily out of work but is *not* receiving unemployment benefits

42. Generally speaking, during the past four years or so, by whom have the important decisions in your family been made?

1. [ ] My father makes almost all of the important decisions himself
2. [ ] My father makes more than half but less than all of the important decisions himself
3. [ ] My father and mother share about equally in making important decisions
4. [ ] My mother makes more than half but less than all of the important decisions herself
5. [ ] My mother makes almost all of the important decisions herself

43-77. During the senior year of high school, many students have made or plan to make application to schools, colleges, employers, or the military service. Below is a list of such places to which applications are usually made.

The INSTRUCTIONS for answering this item are: Read over the entire list carefully; Then, Indicate: (1) The *number* of applications you have made to each place in the column APPLIED; (2) The *number* of acceptances you have received from each place in the column ACCEPTED; (3) The *number* of replies you are awaiting from each place in the column AWAITING; (4) The *number* of rejections you have received from each place in the column REJECTED; (5) If you still plan to make applications, indicate the *number* of applications you plan to make to each place in the column PLAN TO.

FOR EXAMPLE: John applied to 4 four-year colleges and to 3 employers. He was accepted by 2 of the colleges, is awaiting a reply from 1, and was rejected by 1. Thus, on the line for "Four Year Colleges" he places a 4 in the column APPLIED, a 2 in the column ACCEPTED, a 1 in the column AWAITING, and a 1 in the column REJECTED. Of the 3 employers John applied to, 2 have accepted him and 1 has rejected him. Thus, on the line for "Employers" he places a 3 in the column APPLIED, a 2 in the column ACCEPTED, and a 1 in the column REJECTED.

IBM	TYPE OF PLACE	NUMBER OF PLACES:				
		APPLIED	ACCEPTED	AWAITING	REJECTED	PLAN TO
43-47.	Trade or Technical Schools					
48-52.	Two Year Business Schools					
53-57.	Nursing Schools					
58-62.	Two Year Colleges					
63-67.	Four Year Colleges					
68-72.	Employers					
73-77.	Military Services					

CARD TWO

THE FOLLOWING FEW QUESTIONS ARE ABOUT YOUR FATHER'S JOB AND HIS EMPLOYER. IF YOUR FATHER IS NOT CURRENTLY EMPLOYED OR IF YOUR FATHER IS DECEASED, PLEASE GIVE THE NAME OF THE EMPLOYER YOUR FATHER **LAST** WORKED FOR AND THE KIND OF JOB HE **LAST** HAD.

12-14. **What is the full name of the company or business that employs your father?** For example: "Bethlehem Steel Company." (If your father works for himself, write "self-employed" and give the name of your father's business.)

____

(Name of company which employs your father)

15. **How long has your father worked for the employer named in the last question?**

1. [ ] 0 - 2 years
2. [ ] 3 - 5 years
3. [ ] 6 - 8 years
4. [ ] 9 - 11 years
5. [ ] 12 - 14 years
6. [ ] 15 or more years

16. **How many hours a week does your father work for the employer named in question 12-14?** (Estimate an average over the past year or so.)

1. [ ] 40 hours a week or more
2. [ ] Between 30 and 39 hours a week
3. [ ] Between 20 and 29 hours a week
4. [ ] Between 10 and 19 hours a week
5. [ ] Less than 10 hours a week

17-24. **What KIND OF WORK does your father do for the employer named in question 12-14?** (PLEASE TRY TO GIVE THE SPECIFIC NAME OR TITLE OF HIS JOB, for example, "welder", and DESCRIBE THE DUTIES OF HIS JOB, for example, "he uses an electric arc device to join metal together." ALSO: If your father is in the military, please GIVE HIS SPECIFIC MILITARY RANK.)

____

(Specific name or title of father's job or his military rank)

____

(Brief description of duties)

____

____

25. (IF YOUR FATHER IS CURRENTLY UNEMPLOYED, FURLOUGHED, OR LAID OFF FROM HIS MAIN JOB, the job named in question 12-14), **how long has he been UNemployed, furloughed, or laid off from his main job?**

1. [ ] Less than 1 mo.
2. [ ] 2 - 3 months
3. [ ] 4 - 5 months
4. [ ] 6 - 7 months
5. [ ] Almost 1 yr.
6. [ ] Almost 2 yrs.
7. [ ] Longer than 2 yrs.

26. **How many times during the past two years (since June 1963) has your father been UNemployed, furloughed, or laid off from his MAIN job?**

1. [ ] No times
2. [ ] One time
3. [ ] Two times
4. [ ] Three times
5. [ ] Four times
6. [ ] Five or more times

27. **Which ONE of the following best describes the employment situation of your mother?**

1. [ ] Full-time housewife
2. [ ] Works part-time *in* the home
3. [ ] Works part-time *outside* the home
4. [ ] Works full-time (30 hours a week or more) *in* the home doing something other than housework
5. [ ] Works full-time (30 hours a week or more) *outside* the home
6. [ ] Infrequent employment *in* the home
7. [ ] Infrequent employment *outside* the home
8. [ ] Other (Specify:______________)

____

28-35. (IF YOUR MOTHER WORKS PART OR FULL TIME, IN OR OUTSIDE THE HOME): **what KIND OF WORK does she do?** PLEASE TRY TO GIVE THE SPECIFIC NAME OR TITLE OF HER JOB AND DESCRIBE THE DUTIES OF HER JOB.

____

(Specific name or title of mother's job)

____

(Brief description of duties)

____

____

36-38. How far did your mother go in school?

01. [ ] She has no formal schooling
02. [ ] She did not go any further than sixth grade in elementary school
03. [ ] She did not go any further than ninth grade in high school
04. [ ] She did not go any further than eleventh grade in high school
05. [ ] She finished high school
06. [ ] She went to technical or business school but did not finish
07. [ ] She finished technical or business school
08. [ ] She went to nursing school but did not finish
09. [ ] She finished nursing school
10. [ ] She went to college but did not finish
11. [ ] She finished college
12. [ ] She went to graduate or professional school but did not finish
13. [ ] She finished graduate or professional school
14. [ ] Do not know

39. Which ONE of the following statements is most true about continuing your education beyond high school?

1. [ ] My mother *never* urges me to continue my education
2. [ ] My mother *sometimes* urges me to continue my education
3. [ ] My mother *often* urges me to continue my education
4. [ ] My mother *constantly* urges me to continue my education

40. FOR MALES ONLY: What do you plan to do about your military service?

1. [ ] Enlist after high school
2. [ ] Wait until I am drafted
3. [ ] Enlist after I finish trade school, business school, or college
4. [ ] Get an academic deferment
5. [ ] Get a deferment other than an academic deferment
6. [ ] Go to a military college or academy

41. FOR MALES AND FEMALES: What are your plans regarding marriage?

1. [ ] I am married now
2. [ ] I plan to get married soon after I get out of high school
3. [ ] I plan to get married while in the service or while in trade school, business school, nursing school, or college
4. [ ] I plan to finish all my schooling and/or service obligations and then get married
5. [ ] I am undecided

42-44. What are the four school subjects you like best? RANK these four subjects from 1 to 4. 1 for the subject you like first best, 2 for the subject you like second best, etc., all the way through 4.

01. [ ] Science subjects (Examples: chemistry, biology, general science)
02. [ ] Mathematics
03. [ ] Social science subjects (Examples: civics, history, social studies)
04. [ ] English subjects (including speech)
05. [ ] Shop or vocational subjects
06. [ ] Physical education subjects
07. [ ] Foreign languages
08. [ ] Music and art subjects
09. [ ] Commercial and business subjects (Examples: typing, shorthand, etc.)

45. During the past four years or so, if a decision were made in your family that you did not like, how did you feel?

1. [ ] I felt free to complain to my parents about the decision
2. [ ] I felt a little bit uneasy about complaining to my parents about the decision
3. [ ] I felt that it was better not to complain to my parents about the decision

46-48. How far did your father go in school?

01. [ ] He has no formal schooling
02. [ ] He did not go any further than sixth grade in elementary school
03. [ ] He did not go any further than ninth grade in high school
04. [ ] He did not go any further than eleventh grade in high school
05. [ ] He finished high school
06. [ ] He went to trade or technical school but did not finish
07. [ ] He finished trade or technical school
08. [ ] He went to business school but did not finish
09. [ ] He finished business school
10. [ ] He went to college but did not finish
11. [ ] He finished college
12. [ ] He went to graduate or professional school but did not finish
13. [ ] He finished graduate or professional school
14. [ ] Do not know

49. Which one of the following best describes how one or both of your parents regard your opinion in the making of important family decisions?

1. [ ] My parents *never* ask for my opinion
2. [ ] My parents *sometimes* ask for my opinion but what I say usually does not make a difference in the decision
3. [ ] My parents *sometimes* ask for my opinion and what I say usually does make a difference in the decision
4. [ ] My parents *often* ask for my opinion but what I say usually does not make a difference in the decision
5. [ ] My parents *often* ask for my opinion and what I say usually does make a difference in the decision
6. [ ] My parents *almost always* ask for my opinion but what I say usually does not make a difference in the decision
7. [ ] My parents *almost always* ask for my opinion and what I say usually does make a difference in the decision

INSTRUCTIONS: The following few items are about your plans for a job and for an education. There are two types of questions. One type is called "LIKE TO" and the other type is called "EXPECT TO". **There is a very important difference** between the "LIKE TO" and the "EXPECT TO" types of questions.

A "LIKE TO" question on jobs, for example, asks you to choose, from all the jobs you know about, the job you would *really* LIKE TO have when you finish your education. However, sometimes there is a difference between the job a person would *really* LIKE TO have and the job he *actually* EXPECTS TO have. For example, Bob may *really* LIKE TO become an aeronautical engineer. But, he knows that he cannot afford the college education which the job of aeronautical engineer requires. So, instead, he *actually* EXPECTS TO become an aircraft mechanic, a job with aircraft that does not require a college education.

When you answer the questions below, please REMEMBER the *very important difference* between "LIKE TO" and "EXPECT TO" questions. Answer them to the best of your ability. Answer them frankly and honestly. Thank you.

50-57. SUPPOSING you could have the necessary abilities, education, grades, money, etc., what kind of work would you really LIKE TO do after you finish your education?, that is, after you get out of high school, technical, business, nursing school, or college. PLEASE BE VERY SPECIFIC. NOTE: IF YOU would really LIKE TO go into the military, please specify the military rank you would really LIKE TO have.

____

(SPECIFIC NAME OR TITLE OF job I would *really* LIKE TO have)

58-65. CONSIDERING your abilities, grades, financial resources, chances for technical school, college, etc., what kind of work do you actually EXPECT TO do after you finish your education?; that is, after you get out of high school, technical, business, nursing school, or college? PLEASE BE VERY SPECIFIC. NOTE: IF YOU actually EXPECT TO go into the military, please specify the military rank you actually EXPECT TO get.

____

(SPECIFIC NAME OR TITLE OF job I *actually* EXPECT TO get)

66-67. SUPPOSING you had the necessary abilities, grades, money, etc., how far would you really LIKE TO go in school?

1. [ ] 12th grade but not necessarily graduate
2. [ ] Graduate from high school
3. [ ] Trade or technical school
4. [ ] Two year business school
5. [ ] Nursing school
6. [ ] Two years of college
7. [ ] Four years of college
8. [ ] Graduate or professional school

68-69. CONSIDERING your abilities, grades, financial resources, etc., how far do you actually EXPECT TO go in school?

1. [ ] 12th grade but not necessarily graduate
2. [ ] Graduate from high school
3. [ ] Trade or technical school
4. [ ] Two year business school
5. [ ] Nursing school
6. [ ] Two years of college
7. [ ] Four years of college
8. [ ] Graduate or professional school

70. With respect to the making of important family decisions, which one of the following best describes the situation in your family?

1. [ ] Usually, my father makes the decision without first discussing the matter with my mother
2. [ ] Usually, my father discusses the matter with my mother and then he makes the decision more or less by himself
3. [ ] Usually, both of my parents talk over the matter with each other and then they both make the decison more or less together
4. [ ] Usually, my mother discusses the matter with my father and then she makes the decision more or less by herself
5. [ ] Usually, my mother makes the decision without first discussing the matter with my father

71-73. If you are continuing your education after you get out of high school, what are the four most important considerations in deciding which school you will attend? RANK these from 1 to 4. 1 for the first most important, 2 for the second most important, etc., all the way through 4.

1.] Tuition costs and living expenses
2. [ ] Closeness to home
3. [ ] The educational standards
4. [ ] Courses of studies offered
5. [ ] Chances for financial aid
6. [ ] People I know who went or who go to the school
7. [ ] Chances for getting admitted

74. During the last few years or so, has your mother wanted you to continue your education beyond high school?

1. [ ] Yes, she has stressed it a lot
2. [ ] Yes, she has stressed it somewhat
3. [ ] Yes, but she has seldom mentioned it
4. [ ] No, she hasn't cared one way or the other
5. [ ] No, she would rather that I did not go beyond high school

75. If you are continuing your education after you get out of high school, how much do you think your first year in technical, business, nursing school or college will cost? (ASSUME that you have to pay for everything in cash, e.g., tuition, room and board, etc.)

1. [ ] Under $500 a year
2. [ ] $ 500 - $ 999 a year
3. [ ] $1000 - $1999 a year
4. [ ] $2000 - $2499 a year
5. [ ] $2500 or more a year
6. [ ] Do not know

76-79. If you are going to continue your education after high school: Usually, there are about four ways a person's education can be paid for. They are: (1) His parents; (2) Aid in the form of scholarships or loans; (3) Working your way through school; and (4) Money you have saved yourself. About what percentage of the cost of your education do you think will come from each of these four sources? Please indicate your estimates by checking the appropriate percentages in each of the four categories listed below.

76. Parents	**77. Scholarships or Loans**
1. [ ] 25%	1. [ ] 25%
2. [ ] 33%	2. [ ] 33%
3. [ ] 50%	3. [ ] 50%
4. [ ] 67%	4. [ ] 67%
5. [ ] 75%	5. [ ] 75%
6. [ ] 100%	6. [ ] 100%
7. [ ] None	7. [ ] None

78. Working Your Way Through	**79. Money Saved by Yourself**
1. [ ] 25%	1. [ ] 25%
2. [ ] 33%	2. [ ] 33%
3. [ ] 50%	3. [ ] 50%
4. [ ] 67%	4. [ ] 67%
5. [ ] 75%	5. [ ] 75%
6. [ ] 100%	6. [ ] 100%
7. [ ] None	7. [ ] None

CARD THREE

12-14. If you are going to continue your education after high school, how important do you think each of the following will be to you in technical school, business school, nursing school, college, etc. RANK each item from 1 to 4. 1 for the first most important, 2 for the second most important, all the way through 4.

1. [ ] The stimulation of new ideas
2. [ ] Prepartion for making a living
3. [ ] Campus activities and social life
4. [ ] New friends who share my interests

15-22. What kind of job have your parents said they would really LIKE TO see you get when you finish your education: that is, when you get out of high school, technical, business school, nursing school, college, etc.? PLEASE BE VERY SPECIFIC. NOTE: IF IT IS A JOB IN THE MILITARY, PLEASE TRY TO SPECIFY THE MILITARY RANK.

____

(SPECIFIC NAME OR TITLE OF JOB parents say they would LIKE TO see me get)

23-30. What kind of job have your parents said they actually EXPECT you to get when you finish your education: that is, when you get out of high school, technical school, business school, nursing school, college, etc.? PLEASE BE VERY SPECIFIC. NOTE: IF IT IS A JOB IN THE MILITARY, PLEASE TRY TO SPECIFY THE MILITARY RANK.

____
(SPECIFIC NAME OR TITLE OF JOB parents say they actually EXPECT me to get)

31-33. IF YOU DO NOT actually EXPECT TO go on to technical school, business school, nursing school, or college: what are the four most important reasons why you do not expect to do so? RANK these four reasons from 1 to 4. 1 for the first most important reason, 2 for the second most important, all the way through 4.

1. [ ] No desire to go
2. [ ] Money difficulties
3. [ ] Low grades in school
4. [ ] Family responsibilities
5. [ ] Studies would be too hard
6. [ ] Have to work to help my family
7. [ ] Want to get a job of my own and make some money as soon as I get out of high school
8. [ ] I am tired of being a student
9.] [Other (Specify:______________)

34. During he last few years or so, has your father wanted you to continue your education beyond high school?

1. [ ] Yes, he has stressed it a lot
2. [ ] Yes, he has stressed it somewhat
3. [ ] Yes, but he has seldom mentioned it
4. [ ] No, he hasn't cared one way or the other
5. [ ] No, he would rather that I did not go beyond high school

IF YOU HAVE MADE MORE OR LESS DEFINITE ARRANGEMENTS AS TO WHAT YOU ARE GOING TO DO AFTER YOU GET OUT OF HIGH SCHOOL, PLEASE ANSWER ITEMS 35-50. IF YOU HAVE NOT MADE DEFINITE ARRANGEMENTS, PLEASE SKIP TO ITEM 52.

35-45. IF YOU ARE GOING TO WORK FULL-TIME FOR AN EMPLOYER:

35-37. What is the full name or title of the company, business, or industry?

____
(Full name or title of the company, business, or industry)

38-45. What is the specific name or title of the job you will have?

____
(Full name or title of the job I will have)

46. IF YOU ARE GOING INTO THE MILITARY SERVICE: What branch of the service will you be going into?

1. [ ] U.S. Army
2. [ ] U.S. Navy
3. [ ] U.S. Air Force
4. [ ] U.S. Marines
5. [ ] U.S. Coast Guard

47-48. IF YOU ARE GOING TO CONTINUE YOUR EDUCATION ON A FULL-TIME BASIS:

47. What is the full name of the school or college to which you will be going?

____
(Full name of the school or college)

48. In what city and in what state is the school or college located?

________________ ________________
(City) (State)

49-51. IF YOU ARE GOING TO WORK PART-TIME AND GO TO SCHOOL OR COLLEGE PART-TIME: What kind of job do you think you will get and what is the name of the school to which you will be going?

____
(Kind of job I expect to get)

____
(Name of School)

52-53. How far in school has your father said he would really LIKE TO see you go?

1. [ ] 11th or 12th grade but not necessarily graduate
2. [ ] Graduate from high school
3. [ ] Trade or technical school
4. [ ] Two year business school
5. [ ] Nursing school
6. [ ] Two years of college
7. [ ] Four years of college
8. [ ] Graduate or professional school

54-55. How far in school has your father said he actually EXPECTS you to go?

1. [ ] 11th or 12th grade but not necessarily graduate
2. [ ] Graduate from high school
3. [ ] Trade or technical school
4. [ ] Two year business school
5. [ ] Nursing school
6. [ ] Two years of college
7. [ ] Four years of college
8. [ ] Graduate or professional school

56. After you finish your education (high school, technical, business, or nursing school, college, etc.) do you think the kind of work you actually EXPECT TO do will be available in your community?

1. [ ] Yes
2. [ ] No
3. [ ] Do not know

57. After you finish your education (high school, technical, business, or nursing school, college, etc.) IF the kind of work you actually EXPECT TO do is NOT available in your community, what would you do?

1. [ ] Stay and look for another kind of work
2. [ ] Move away so that I could find the kind of work I EXPECT TO do
3. [ ] Other (Specify:____________________)

58-59. How far in school has your mother said she would really LIKE TO see you go?

1. [ ] 11th or 12th grade but not necessarily graduate
2. [ ] Graduate from high school
3. [ ] Trade or technical school
4. [ ] Two year business school
5. [ ] Nursing school
6. [ ] Two years of college
7. [ ] Four years of college
8. [ ] Graduate or professional school

60-61. How far in school has your mother said she actually EXPECTS you to go?

1. [ ] 11th or 12th grade but not necessarily graduate
2. [ ] Graduate from high school
3. [ ] Trade or technical school
4. [ ] Two year business school
5. [ ] Nursing school
6. [ ] Two years of college
7. [ ] Four years of college
8. [ ] Graduate or professional school

62. How important is it to you to get good school grades?

1. [ ] Exceedingly important
2. [ ] Very important
3. [ ] Somewhat important
4. [ ] Not too important
5. [ ] Not at all important

INSTRUCTIONS: THE FOLLOWING ITEMS ARE ABOUT YOUR THREE BEST FRIENDS OF YOUR **OWN** SEX. The questions are not personal, so please try to answer them to the best of your ability and answer them frankly and honestly. NOTE: If one or more of your best friends is not in high school, please try to recall the information asked for and then answer the question to the best of your ability. ALSO: GIRLS — since the question reads best friends of your **OWN** sex, wherever you see a "he" in the questions on your three best friends, change the "he" in your mind to a "she". Thank you.

63. What kind of a program is he (best friend No. 1) taking in high school?

1. [ ] Academic or College prep.
2. [ ] Science
3. [ ] General
4. [ ] Commercial or Business
5. [ ] Vocational Agriculture
6. [ ] Vocational Industrial Arts
7. [ ] Other (Specify:____________________)

64-65. How far would he (best friend No. 1) really LIKE TO go in school?

1. [ ] 11th or 12th grade but not necessarily graduate
2. [ ] Graduate from high school
3. [ ] Trade or technical school
4. [ ] Two year business school
5. [ ] Nursing school
6. [ ] Two years of college
7. [ ] Four years of college
8. [ ] Graduate or professional school

66-68. What kind of work does the father of best friend No. 1 do? (PLEASE TRY TO GIVE A SPECIFIC JOB TITLE OR MILITARY RANK)

____

(SPECIFIC NAME of father's job)

69-70. How far does he (best friend No. 1) actually EXPECT TO go in school?

1. [ ] 11th or 12th grade but not necessarily graduate
2. [ ] Graduate from high school
3. [ ] Trade or technical school
4. [ ] Two year business school
5. [ ] Nursing school
6. [ ] Two years of college
7. [ ] Four years of college
8. [ ] Graduate or professional school

71-74. What kind of work does he (best friend No. 1) actually EXPECT TO do after he finishes his education? (PLEASE TRY TO GIVE A SPECIFIC JOB TITLE OR NAME) NOTE: If he is currently employed, please give the title of his present job.

____

Kind of work he *actually* EXPECTS TO do:

75. What is he (best friend No. 1) doing currently?

1. [ ] In high school
2. [ ] Did not complete high school but is not currently working or in the service
3. [ ] Did not complete high school and is currently working or in the service
4. [ ] Finished high school but is neither currently working nor in the service, nor in technical school, college, etc.
5. [ ] Finished high school and is either currently working or in the service
6. [ ] Finished high school and is currently in technical, nursing, business school or college
7. [ ] FOR GIRLS ONLY: Is married & a housewife
8. [ ] Other (Specify:______________)

CARD FOUR

THESE QUESTIONS ARE ABOUT BEST FRIEND NUMBER TWO

12. What kind of program is he (best friend No. 2) taking in high school?

1. [ ] Academic or College prep.
2. [ ] Science
3. [ ] General
4. [ ] Commercial or Business
5. [ ] Vocational Agriculture
6. [ ] Vocational Industrial Arts
7. [ ] Other (Specify:______________)

13-14. How far would he (best friend No. 2) really LIKE TO go in school?

1. [ ] 11th or 12th grade but not necessarily graduate
2. [ ] Graduate from high school
3. [ ] Trade or technical school
4. [ ] Two year business school
5. [ ] Nursing school
6. [ ] Two years of college
7. [ ] Four years of college
8. [ ] Graduate or professional school

15-17. What kind of work does the father of best friend No. 2 do? (PLEASE TRY TO GIVE A SPECIFIC JOB TITLE OR NAME OR MILITARY RANK)

____

(SPECIFIC NAME of father's job)

18-19. How far does he (best friend No. 2) actually EXPECT TO go in school?

1. [ ] 11th or 12th grade but not necessarily graduate
2. [ ] Graduate from high school
3. [ ] Trade or technical school
4. [ ] Two year business school
5. [ ] Nursing school
6. [ ] Two years of college
7. [ ] Four years of college
8. [ ] Graduate or professional school

20-23. What kind of work does he (best friend No. 2) actually EXPECT TO do after he finishes his education? (PLEASE TRY TO GIVE A SPECIFIC JOB TITLE OR NAME) NOTE: If he is currently employed, please give the title of his present job.

____

Kind of work he *actually* EXPECTS TO do:

24. What is he (best friend No. 2) doing currently?

1. [ ] In high school
2. [ ] Did not complete high school but is not currently working or in the service
3. [ ] Did not complete high school and is currently working or in the service
4. [ ] Finished high school but is neither currently working nor in the service, nor in technical school, college, etc.
5. [ ] Finished high school and is either currently working or in the service
6. [ ] Finished high school and is currently in technical, nursing, business school or college
7. [ ] FOR GIRLS ONLY: Is married & a housewife
8. [ ] Other (Specify:______________)

THESE QUESTIONS ARE ABOUT BEST FRIEND NUMBER THREE

25. What kind of program is he (best friend No. 3) taking in high school?

1. [ ] Academic or College prep.
2. [ ] Science
3. [ ] General
4. [ ] Commercial or Business
5. [ ] Vocational Agriculture
6. [ ] Vocational Industrial Arts
7. [ ] Other (Specify:________________________)

26-27. How far would he (best friend No. 3) really LIKE TO go in school?

1. [ ] 11th or 12th grade but not necessarily graduate
2. [ ] Graduate from high school
3. [ ] Trade or technical school
4. [ ] Two year business school
5. [ ] Nursing school
6. [ ] Two years of college
7. [ ] Four years of college
8. [ ] Graduate or professional school

28-30. What kind of work does the father of best friend No. 3 do? (PLEASE TRY TO GIVE A SPECIFIC JOB TITLE OR MILITARY RANK)

____
(SPECIFIC NAME of father's job)

31-32. How far does he (best friend No. 3) actually EXPECT TO go in school?

1. [ ] 11th or 12th grade but not necessarily graduate
2. [ ] Graduate from high school
3. [ ] Trade or technical school
4. [ ] Two year business school
5. [ ] Nursing school
6. [ ] Two years of college
7. [ ] Four years of college
8. [ ] Graduate or professional school

33-36. What kind of work does he (best friend No. 3) actually EXPECT TO do after he finishes his education? (PLEASE TRY TO GIVE A SPECIFIC JOB TITLE OR NAME) NOTE: If he is currently employed, please give the title of his present job.

____
Kind of work he *actually* EXPECTS TO do:

37. What is he (best friend No. 3) doing currently?

1. [ ] In high school
2. [ ] Did not complete high school but is not currently working or in the service
3. [ ] Did not complete high school and is currently working or in the service
4. [ ] Finished high school but is neither currently working nor in the service, nor in technical school, college, etc.
5. [ ] Finished high school and is either currently working or in the service
6. [ ] Finished high school and is currently in technical, nursing, business school or college
7. [ ] FOR GIRLS ONLY: Is married & a housewife
8. [ ] Other (Specify:________________________)

38-49. What are the names of your three best friends? PLEASE PRINT CLEARLY.

Friend No. 1: ________________, ________________
(Last Name) (First Name)

Friend No. 2: ________________, ________________
(Last Name) (First Name)

Friend No. 3: ________________, ________________
(Last Name) (First Name)

50. How would you rate your community in terms of employment opportunities for people who have just gotten out of high school?

1. [ ] Jobs are very easy to get
2. [ ] Jobs are fairly easy to get
3. [ ] Jobs are not too easy to get
4. [ ] Jobs are difficult to get
5. [ ] Do not know

51. How has the employment situation in your community changed over the past two years?

1. [ ] Jobs have gotten much easier to get
2. [ ] Jobs have gotten somewhat easier to get
3. [ ] The job situation has stayed about the same, there has been no real change
4. [ ] Jobs have gotten somewhat harder to get
5. [ ] Jobs have gotten much harder to get
6. [ ] Do not know

52-53. How has the change (if any) in the employment situation in your community over the past two years influenced your educational and occupational plans?
NOTE: You may check more than one answer.

1. [ ] Because of the change, I wanted a better job two years ago than I want now
2. [ ] Because of the change, I wanted a better education two years ago than I want now
3. [ ] The change has had little or no influence on my plans for a job
4. [ ] The change has had little or no influence on my plans for an education
5. [ ] Because of the change, I want a better job now than I did two years ago
6. [ ] Because of the change, I want a better education now than I did two years ago
7. [ ] Other (Specify:______________________)

54. After you finish your education (high school, technical, business, nursing school, college, etc.) which ONE of the following would your mother MOST LIKELY encourage you to do?

1. [ ] Live in my present community and get a job
2. [ ] Move away from my present community and get a job
3. [ ] Live wherever I can find the best job possible, even if it means moving away from my present community
4. [ ] Leave the decision as to where to live entirely up to me

55. Assuming you could find the job you want in your present community, how well would you like your present community as a place to live after you finish your education (high school, technical, business, nursing school, college, etc.)?

1. [ ] I would very much like living here
2. [ ] I would like living here
3. [ ] I would be indifferent about living here
4. [ ] I would dislike living here
5. [ ] I would very much dislike living here

56. After you finish your education, which ONE of the following would your father MOST LIKELY encourage you to do?

1. [ ] Live in my present community and get a job
2. [ ] Move away from my present community and get a job
3. [ ] Live wherever I can find the best job possible, even if it means moving away from my present community
4. [ ] Leave the decision as to where to live entirely up to me

57. After you finish all of your education, IF the work you actually EXPECT TO do were to be available in your present community, would you remain (or return to) your community?

1. [ ] Definitely yes
2. [ ] Probably yes
3. [ ] Probably no
4. [ ] Definitely no

58. How eager are you to stay in your present community?

1. [ ] Very eager to stay
2. [ ] Fairly eager to stay
3. [ ] It does not make much difference whether I stay or leave
4. [ ] Fairly eager to move away
5. [ ] Very eager to move away

59. How much consideration are you giving to moving away from your community after you get out of high school?

1. [ ] A great deal
2. [ ] Some
3. [ ] A little
4. [ ] Almost none

60. Have you taken part in any school clubs, organizations, or activities this year? For example: sports, music, newspaper, art, etc.

1. [ ] Yes
2. [ ] No

61-79. IF YOU HAVE TAKEN PART IN SCHOOL CLUBS, ORGANIZATIONS, ACTIVITIES, ETC.: What are they? Name as many as you have participated in this year.

1. ______________
2. ______________
3. ______________
4. ______________
5. ______________
6. ______________
7. ______________
8. ______________
9. ______________
10. ______________

80. How many offices have you held in the school clubs, organizations, or activities in which you have participated this year?

1. [ ] I have not held any office
2. [ ] One office
3. [ ] Two offices
4. [ ] Three offices
5. [ ] Four offices
6. [ ] Five offices
7. [ ] Six offices
8. [ ] Seven or more offices

CARD FIVE

12. Do you have any brothers NOW in college?

1. [ ] No brothers in college
2. [ ] One brother in college
3. [ ] Two brothers in college
4. [ ] Three or more brothers in college

13. Do you have any brothers who have GRADUATED from college?

1. [ ] No brothers who have graduated from college
2. [ ] One brother who has graduated from college
3. [ ] Two brothers who have graduated from college
4. [ ] Three or more brothers who have graduated from college

14. Do you have any brothers who are planning to go to college?

1. [ ] No brothers planning to go to college
2. [ ] One brother planning to go to college
3. [ ] Two brothers planning to go to college
4. [ ] Three or more brothers planning to go to college

15. Do you have any brothers who went to BUT did not graduate from college?

1. [ ] No brothers who went but did not graduate
2. [ ] One brother who went but did not graduate
3. [ ] Two brothers who went but did not graduate
4. [ ] Three or more brothers who went but did not graduate

16. Do you have any sisters NOW in college?

1. [ ] No sisters in college
2. [ ] One sister in college
3. [ ] Two sisters in college
4. [ ] Three or more sisters in college

17. Do you have any sisters who have GRADUATED from college?

1. [ ] No sisters who have graduated from college
2. [ ] One sister who has graduated from college
3. [ ] Two sisters who have graduated from college
4. [ ] Three or more sisters who have graduated from college

18. Do you have any sisters who are planning to go to college?

1. [ ] No sisters planning to go to college
2. [ ] One sister planning to go to college
3. [ ] Two sisters planning to go to college
4. [ ] Three or more sisters planning to go to college

19. Do you have any sisters who went to BUT did not graduate from college?

1. [ ] No sisters who went but did not graduate
2. [ ] One sister who went but did not graduate
3. [ ] Two sisters who went but did not graduate
4. [ ] Three or more sisters who went but did not graduate

20. How much right do your parents have to make decisions for you AFTER you get out of high school?

1. [ ] A definite right
2. [ ] Some right
3. [ ] No right, but they may give me their opinions
4. [ ] No right, not even to give me their opinions

CARD NINE

12-13. During the past MONTH who in your family, including yourself, was accidentally injured? (Any kind of accidental injury . . . i.e., fall, burn, cut, car accident, etc.

01. [ ] No one
02. [ ] Myself
03. [ ] Father
04. [ ] Mother
05. [ ] One brother
06. [ ] Two brothers
07. [ ] Three or more brothers
08. [ ] One sister
09. [ ] Two sisters
10. [ ] Three or more sisters

14-25. How many TIMES in the past MONTH was each of these people accidentally injured?

The Person	*Number of Times Injured in Past Month*
14. No one had accidental injury	______
15. Myself	______
16. Father	______
17. Mother	______
18. Brother No. 1	______
19. Brother No. 2	______

Question 14-25 Continued . . .

20. Brother No. 3 .... ______

21. Brother No. 4 .... ______

22. Sister No. 1 .... ______

23. Sister No. 2 .... ______

24. Sister No. 3 .... ______

25. Sister No. 4 .... ______

26-27. In the past 12 MONTHS, who in your family, including yourself, was the DRIVER of any kind of vehicle that was involved in a collision with another vehicle of any kind? (Any kind of vehicle means: car, truck, motorcycle or scooter, bicycle, farm tractor, farm wagon, etc.)

1. [ ] No one
2. [ ] Myself
3. [ ] Father
4. [ ] Mother
5. [ ] Sister or Brother

28. How often do you drive a car?

1. [ ] Every day
2. [ ] Several times a week
3. [ ] Occasionally
4. [ ] Never

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APPENDIX B

Tables of Numbers of Respondents Classified by the Independent Variables

TABLE 60

DISTRIBUTION OF RESPONDENTS' FAMILIES ACCORDING TO HOLLINGSHEAD SOCIOECONOMIC STATUS SCORES AND TYPE OF ECONOMIC AREA

Hollingshead Socioeconomic Status	Type of Economic Area				All Areas	
	Depressed		Prosperous			
	n	%	n	%	n	%
Upper Middle	84	5.3	136	10.6	220	7.7
Lower Middle	280	17.7	295	23.0	575	20.1
Upper Working	790	49.9	590	46.1	1380	48.2
Lower Working	423	26.7	254	19.8	677	23.6
No Response	6	0.4	6	.5	12	0.4
Totals	1583	100.0	1281	100.0	2864	100.0

TABLE 61

EDUCATION OF PARENTS, BY HOLLINGSHEAD SOCIOECONOMIC STATUS

Hollingshead Socioeconomic Status	Education of Mother (Years)	Education of Father (Years)			Totals
		13+	12	11-	
Upper and Lower Middle	13+	192	40	6	238
	12	201	129	31	361
	11-	55	44	21	120
No Response					76
Totals		448	213	58	795
Upper and Lower Working	13+	17	80	76	173
	12	49	422	371	842
	11-	40	225	587	852
No Response					190
Totals		106	727	1034	2057

TABLE 62

FAMILY SIZE BY HOLLINGSHEAD SOCIOECONOMIC STATUS CATEGORIES

Hollingshead Socioeconomic Status	Family Size			No Response	Totals
	Small	Medium	Large		
Upper Middle	84	91	45		220
Lower Middle	261	212	102		575
Upper Working	524	563	293		1380
Lower Working	227	242	204	4	677
Totals	1096	1108	644	4	2852

TABLE 63

INTENSIRY OF PARENTAL ACHIEVEMENT PRESSURE BY HOLLINGSHEAD SOCIOECONOMIC STATUS CATEGORIES

Hollingshead Socioeconomic Status Categories	Parental Pressure				No Response	Totals
	High		Low			
	Maternal					
	High	Low	High	Low		
Upper Middle	161	17	13	23	6	220
Lower Middle	370	55	55	78	17	575
Upper Working	748	105	155	322	50	1380
Lower Working	265	41	105	217	49	677
Totals	1544	218	328	640	122	2852

TABLE 64

PATERNAL AND MATERNAL EDUCATIONAL ASPIRATIONS AND EXPECTATIONS FOR RESPONDENTS BY HOLLINGSHEAD SOCIOECONOMIC STATUS

Educational Orientation	Hollingshead Socioeconomic Status									
	Upper Middle		Lower Middle		Upper Working		Lower Working		Totals	
	Fa.	Mo.	Fa.	Mo.	Fa.	Mo.	Fa.	Mo.	Fa.	Mo.
Aspirations										
16+	186	188	429	424	786	796	275	292	1676	1700
14	10	10	47	55	248	253	124	128	429	446
12-10	3	6	33	36	190	215	170	184	396	441
Resp. D.K.	18	13	57	40	126	84	83	50	284	187
No Response	3	3	9	20	30	32	25	23	67	78
Totals	220	220	575	575	1380	1380	677	677	2852	2852
Expectations										
16+	154	157	292	303	438	447	106	115	990	1022
14	15	15	74	71	211	239	97	109	397	434
12-10	19	19	107	110	528	536	356	355	1010	1020
Resp. D.K.	28	27	89	69	167	124	84	72	368	292
No Response	4	2	13	22	36	34	34	26	87	84
Totals	220	220	575	575	1380	1380	677	677	2852	2852

TABLE 65

EDUCATIONAL ASPIRATIONS AND EXPECTATIONS OF RESPONDENTS BY HOLLINGSHEAD SOCIOECONOMIC STATUS

Educational Orientation	Hollingshead Socioeconomic Status				Totals
	Upper Middle	Lower Middle	Upper Working	Lower Working	
Aspirations					
16+	194	448	795	290	1727
14	19	76	355	196	646
12-10	6	49	191	176	422
No Response	1	2	39	15	57
Totals	220	575	1380	677	2852
Expectations					
16+	173	328	482	131	1114
14	28	117	331	155	631
12-10	18	126	555	379	1078
No Response	1	4	12	12	29
Totals	220	575	1380	677	2852

TABLE 66

OCCUPATIONAL ASPIRATIONS AND EXPECTATIONS OF RESPONDENTS BY HOLLINGSHEAD SOCIOECONOMIC STATUS

Occupational Orientation	Hollingshead Socioeconomic Status Upper Middle	Lower Middle	Upper Working	Lower Working	Totals
Aspirations					
Minor to Major Prof. and Admin.	190	433	866	313	1802
Technical and Clerical	9	51	149	80	289
Skilled and Semi-Skilled	5	53	274	196	528
Unskilled	2	1	1	5	9
No Response	14	37	90	83	224
Totals	220	575	1380	677	2852
Expectations					
Minor to Major Prof. and Admin.	162	331	551	164	1206
Technical and Clerical	16	63	167	78	324
Skilled and Semi-Skilled	9	81	384	237	711
Unskilled	3	8	23	23	57
No Response	20	92	255	175	542
Totals	220	575	1380	677	2852

TABLE 67

BIRTH ORDER OF RESPONDENTS, BY HOLLINGSHEAD SOCIOECONOMIC STATUS AND FAMILY SIZE

Hollingshead Socioeconomic Status	Family Size By No. of Children	Ordinal Position				Totals
		First Born	Second Born	Inter-mediate	Last Born	
Upper Middle	1	18				18
	2	39	27			66
	3 and 4	48	22	7	14	91
	5+	15	10	14	5	44
Totals		120	59	21	19	219
Lower Middle	1	91				91
	2	88	82			170
	3 and 4	101	70	11	30	212
	5+	32	21	32	17	102
Totals		312	173	43	47	575
Upper Working	1	143				143
	2	210	173			383
	3 and 4	247	154	38	124	563
	5+	90	59	108	35	292
Totals		690	386	146	159	1381
Lower Working	1	69				69
	2	89	69			158
	3 and 4	78	65	24	75	242
	5+	43	23	103	35	204
Totals		279	157	127	110	673
Totals	1	321				321
	2	426	351			777
	3 and 4	474	311	80	243	1108
	5+	180	113	257	92	642
Totals		1401	775	337	335	2848
No Responses						4
Grand Total						2852